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ABSTRACT

This publication provides practical guidelines to design future school buildings and to set up administrative programs for existing structures that can cut the cost of both intentional and accidental school property damage. The first section on building exterior design responses discusses ways to reduce the ongoing cost of property damage by careful design of a school's physical plant. The section on building interior design responses considers ways to minimize costs of property damage and maintenance through design and materials specification. The third section contains ways to cut property damage costs through administrative programs aimed at involving students in the school, at using personnel effectively, and at keeping "eyes on the school." The fourth section, design accountability checklists, presents one general question for every major design issue and then a series of specific "yes-no" questions to determine if the issue has been taken into account by the architect in the design. The final section is an annotated bibliography of literature on vandalism and property damage. (Author/MLF)

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STOPPING SCHOOL PROPERTY DAMAGE

John Zeisel
Architecture Research Office
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Design and Administrative Guidelines to Reduce School Vandalism

Published by American Association of School Administrators and Educational Facilities Laboratories in collaboration with City of Boston Public Facilities Department

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Preface

In April, 1975 the Subcommittee to Investigate Juvenile Delinquency released a report on the nature and extent of violence and vandalism in American public schools. This report, "Our Nation's Schools — A Report Card: "A" In School Violence and Vandalism" was the result of a nation-wide survey of 757 school districts containing over half of the public elementary and secondary students in the country. The sobering survey findings prompted the Subcommittee to hold a series of hearings to more fully explore the nature of these problems and possible strategies for curbing them. In our hearings we have heard from varied segments of the educational community including superintendents, principals, parents, teachers, students, school security directors, as well as private educational research organizations and experts in the area of student rights and responsibilities. Our study shows that the dramatic increase in frequency and intensity of violence and vandalism in schools is a critical problem for the American education system.

Property damage and vandalism costs represent a staggering loss of precious educational funds for school districts already operating under stringent budgetary limitations. Last year, for example, Chicago and Los Angeles reported paying a total of $17 million for school vandalism and property damage. Testimony at our hearings places the yearly national cost of school vandalism in the hundreds of millions of dollars. In addition to these monetary losses, of course, vandalism has important social costs. These social costs are more difficult to quantify, but they are no less real to students and teachers confronted by them in schools every day.

Problems of school violence and vandalism require positive approaches by every segment of government from the Congress to the school board, and necessitate involving students, faculty, administrators and parents to develop solutions. The federal government has a part to play in this effort. Accordingly I recently introduced the Juvenile Delinquency In The Schools Act of 1975 (S. 1440) which will provide guidance and resources in this area. I believe, however, that there can be no "federal" solution to problems such as these. Essentially the role of the federal government is limited to assisting schools and school boards in a task which must, and should, remain theirs to complete.

John Zeisel's *Stopping School Property Damage* presents schools and school officials an opportunity to implement local strategies which can cut the cost of both intentional and accidental school property damage. This book provides practical guidelines to design future school buildings and to set up administrative programs for existing structures, which can be immensely helpful to a district confronted by these problems. The proposals contained in *Stopping School Property Damage* were developed through extensive interviews with experienced educators, architects, and students throughout the country and represent logical, straightforward approaches to the problems of school vandalism. Moreover many of them can be implemented with relatively little expense.

We cannot continue to absorb losses attributed to school vandalism as just another cost item in our educational budgets. We must do something to reduce school property damage costs. Zeisel's *Stopping School Property Damage* is a good place to begin.

The Honorable Birch Bayh
The United States Senate
Chairman, Subcommittee to
Investigate Juvenile Delinquency

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Foreword

As Senator Bayh has pointed out in the preface to this book, school property damage has become a major financial consideration for the schools of America. This is particularly true in 1976 when administrators throughout the nation are coping with tight school budgets, rapidly escalating energy costs and inflation in all aspects of operation.

Any survey of school officials today will show that the issue of vandalism in schools ranks near the top of the major concerns. It is also an issue which school administrators and other educators are determined to significantly reduce through concerted programs.

The American Association of School Administrators, in its official resolutions adopted at its annual convention in Atlantic City, N.J. in February, 1976, called upon school administrators to build a positive climate in the schools which "supports education and permits each student to learn in a safe environment." Said AASA, "These policies and procedures should be developed and implemented with appropriate involvement of school personnel, students, parents and other interested members of the community."

We believe the guidelines and recommendations contained in this book will provide school officials throughout the nation with a solid document to not only implement this resolution, but also to build positive programs to reduce vandalism.

We would also like to underscore that the joint publication of this book by EFL and AASA represents another cooperative endeavor to seek solutions in design and architecture for the benefit of education.

Paul B. Salmon
Executive Director
AASA

Alan C. Green
President
EFL

The City of Boston has found a fundamental, workable approach to curbing vandalism in our public buildings through the efforts of John Zeisel and the Harvard Graduate School of Design.

The findings and recommendations of this report are being instituted in the design of every new public school in Boston. The next series of schools will be more durable and less likely to be vandalized because of the innovative conclusions drawn from Zeisel's work.

We are proud to endorse publication of *Stopping School Property Damage*, and encourage its wide distribution. Hopefully, other municipalities will share the gains we are making to minimize the costs of public building vandalism.

Kevin H. White
Mayor
City of Boston

Introduction

The Architecture Research Office project — Stopping School Property Damage — began in 1973 under contract to the City of Boston, Public Facilities Department (PFD). Since then, continued support for different segments of the project has come from the Educational Facilities Laboratories (EFL) and from the Massachusetts Advisory Council on Education (MACE).

PFD is responsible for design and construction of all public buildings except housing in the City of Boston. In 1972, PFD architects Stuart Lesser, Ralph Clampitt, and Roger Roman decided that an understanding of the relationship between design and property damage could help them reduce costs of maintaining Boston school buildings. Under Robert Vey, PFD funded the first phase of this study. Results of this phase included redefinition of the problem of vandalism to include attractive nuisance design issues, design guidelines for school exterior, an in-depth annotated bibliography, and testing basic concepts through design review procedures on eight schools to be occupied in 1975-76.

In 1973, Educational Facilities Laboratories, New York, became interested in the project, focussing an issue of their newsletter, *Schoolhouse*, on design guidelines. EFL with PFD then funded development of materials and format to present design guidelines to reduce property damage in a way useful to school architects and their clients.

EFL also sponsored a new direction for the project: a study of administrative programs for reducing property damage problems. In this study, research team members visited schools where such programs were operating. The results of this phase included an understanding of the way in which several successful programs work.

In 1974, the Massachusetts Advisory Council on Education sponsored a major effort to make the property damage project relevant to the needs of the Commonwealth of Massachusetts. This study produced design guidelines for renovating and rehabilitating school building interiors, worksheets for establishing cost effectiveness of actions to reduce property damage, and a survey of Massachusetts School Superintendents. Under the leadership of MACE, all basic materials were compiled into one document. In conjunction with the publication and dissemination of this document, MACE sponsored a series of workshops for Massachusetts school personnel including custodians, superintendents, business officials and school committee people. These were conducted in the spring of 1975 with the help of the regional offices of the Massachusetts Department of Education.

The American Association of School Administrators (AASA) and Educational Facilities Laboratories are now publishing this revised and updated edition of the book for national distribution.

While the project — Stopping School Property Damage — has been directed by me, several other researchers have played vital roles in the development of ideas and the production of sections of reports.

Deana Rhodeside, psychologist and city planner, was involved during the project's first year and helped develop its initial directions with Boston's Public Facilities Department. The humane orientation we have tried to maintain throughout was due greatly to her. In addition, she is responsible for writing and organizing the annotated bibliography.

Andrew Seidel, policy planner and architect, was Project Manager during the Project's last year under its sponsorship by the Massachusetts Advisory Council on Education. He organized and carried out much of the Massachusetts based research, oversaw production of the final MACE document, and participated in the four workshops for Massachusetts school personnel. Mr. Seidel was responsible for the section on Cost-Benefit Guidelines which appears in the MACE workbook.

Mary Griffin, design researcher and future architect, worked primarily on the administrative program section of the project, observing ongoing projects and interviewing personnel throughout the country. Much of the content and presentation format for the administrative section was planned by her.

Others also helped to keep the project going over its three year life. These included Read McCarty, Daniel Cooper and Diane Klotz.

The true test of our work now lies in the hands of the most important participants: administrators, teachers, students, parents, planners and architects.

John Zeisel
Harvard University

Chapter I

Organization and Study

This book is designed for people concerned with problems of property damage and vandalism in planned and existing school buildings. Sections are meant to be useful separately, but to be used together if desired. These sections are:

I. **Building Exterior Design Responses**

Ways to reduce on-going cost of property damage by careful design of a school's physical plant. Exterior design considerations are especially essential in early design phases when the overall concept of the building is being developed.

II. **Building Interior Design Responses**

Ways to minimize costs of property damage and maintenance through design and materials specification. Interior design considerations are crucial during design development and working drawing phases of the design process.

III. **Administrative Responses**

Ways to cut property damage costs through administrative programs aimed at involving students in the school, at using personnel effectively, and at keeping "eyes on the school." These detailed descriptions of model programs can be helpful to administrators, teachers, and students who want to develop their own program specially suited to their problems.

IV. **Design Accountability Checklists**

For every major design issue — both interior and exterior — this section presents one general question and then a series of specific "yes-no" questions to determine if the issue has been taken into account by the architect in his or her design. These checklists are helpful during design review between client, user, and architect as a focus for discussion.

V. **Annotated Bibliography**

This literature survey presents important literature on vandalism and property damage with in-depth summaries of important works. Thorough reading of this section gives an overview of available research and theory, and can help direct the reader to further information.

Redefinition of Vandalism

Early in one of the studies leading up to this book, it was realized that it is easy to respond defensively to "vandalism." Defensive physical responses include such things as prison-type schools, bars on windows, no windows at all if possible, and high fences around all school grounds. Defensive administrative responses include guard dogs, silent burglar alarms, stiff punishment for offenders, and cutting down free time for students generally. While such responses may sometimes be appropriate, they are by no means the only way to respond to the problem.

We began by looking at the implications of the term "vandalism." Its popular connotation implies that vandals are conscious aggressors. However, vandalism is more than just the actions of malicious persons. Vandalism popularly means breakage, defacement, and theft, as well as many types of property damage.

For the purpose of developing appropriate responses to "vandalism" we separated different types of property damage. First we distinguished between theft of materials and property damage itself. While this distinction is usually made in other types of facilities, it is seldom made in schools. We then grouped property damage into four categories — described in terms of the motive of the person being destructive and the indirect effect of the damage:

	Consequence	
	Instantaneous Damage Demanding Immediate Attention	Cumulative Damage Demanding Eventual Attention
Motive		
Conscious	Malicious Vandalism	Non-malicious Property Damage
Not Purposeful	Misnamed Vandalism	Hidden Maintenance Damage

These four types of property damage each have different implications for the design of school facilities. An example of each type will clarify its definition:

1. **Malicious Vandalism**

   In an attempt to hurt the principal who has given a student a stern lecture, the student breaks a window in the principal's office. The motive is conscious and the consequence is a broken window which needs immediate attention.

   Malicious acts like these are primarily social, educational, or legal problems and must be dealt with primarily through such mechanisms. In most cases the designer can do little to respond to malicious vandalism except provide more protective screening and stronger locks on doors.

2. **Misnamed Vandalism**

   A basketball court is planned next to a series of windows in a school hallway. In playing ball one afternoon, neighborhood teenagers break a window. There is no purposefulness in the act, but nevertheless the broken window must be repaired immediately to keep out intruders and bad weather.

   This type of damage is often called "vandalism" by those who must repair the window. But in actuality it is accidental damage which could be avoided by better predicting activity adjacent to the windows, and by planning walls and windows better able to withstand the legitimate rough use they get.

3. **Non-malicious Property Damage**

   Boys use a school building wall to play street hockey, but there is no built-in hockey net to use as a goal. So the boys spray-paint a hockey net onto the wall.

   They are providing something necessary to their game. People walking by, however, see the lines on the wall as graffiti and vandalism.

   While the boys are conscious that they are doing something which might be considered destructive of property, they paint their lines not out of maliciousness, not to damage, but rather to meet what they see as a legitimate need. The consequence of such actions do not demand immediate repair for the school to continue operating. Possible design responses to damage of this kind include painting lines on the wall in initial construction or helping the children paint their lines neatly. Of course, there are many other potential responses. It also helps if adults understand the needs of the street hockey players and therefore are more tolerant of spray painted hockey nets. The designer needs to better predict informal needs of school children.

4. **Hidden Maintenance Damage**

   To soften the edge between a pathway and the school building itself, a designer specifies a strip of low bushes. While the bushes look nice initially, over time they catch debris dropped by passers-by on the path or blown by the wind. The custodian, if he finds the time, has to make a special effort to wade among the bushes to clear away the highly visible litter.

   This type of subtle property defacement is neither done purposefully by people who use schools, nor does it require immediate attention. Such problems are seldom, if ever, called vandalism, and hardly ever included in calculation of damage costs. But these types of design specifications increase the cost of maintenance. Designing responses to such problems means avoiding surfaces and plantings which show up slight damage and increasing use of easily maintained surfaces. Some researchers have found that poorly maintained areas tend to be more frequently vandalized than those which appear to be more cared for.

Focus On Non-Malicious Vandalism

According to reports, malicious vandalism causes under fifty percent of school property damage, if we do not include theft of property. Designers and planners have primarily directed their attentions towards defending schools against breaking and entering and against malicious mischief. We are mainly concerned with the other half of the problem because this has, in the past, largely been ignored. We direct our attention primarily towards arriving at design responses to the problems of misnamed vandalism, non-malicious property damage, and hidden maintenance damage, although our administrative responses are directed at traditional malicious vandalism as well.

Research Methods Used in the Study

In carrying out this study we performed the following tasks:

- In depth focussed interviews with over 200 students, teachers, administrators, custodians, and school superintendents.
- Working sessions with architects designing schools for the City of Boston.
- Site visits to schools in Boston, New York, Washington, and in smaller towns throughout Massachusetts.
- Site visits and interviews with personnel involved in administrative programs in various states from Massachusetts to California.
- Questionnaires sent to all 286 Massachusetts School Superintendents, which received 156 responses.
- Literature search of available books and pamphlets on property damage and vandalism.
- Computerized literature search of the Educational Resources Information Center (ERIC) at the National Institute of Education.

Approaches and Values Underlying School Design

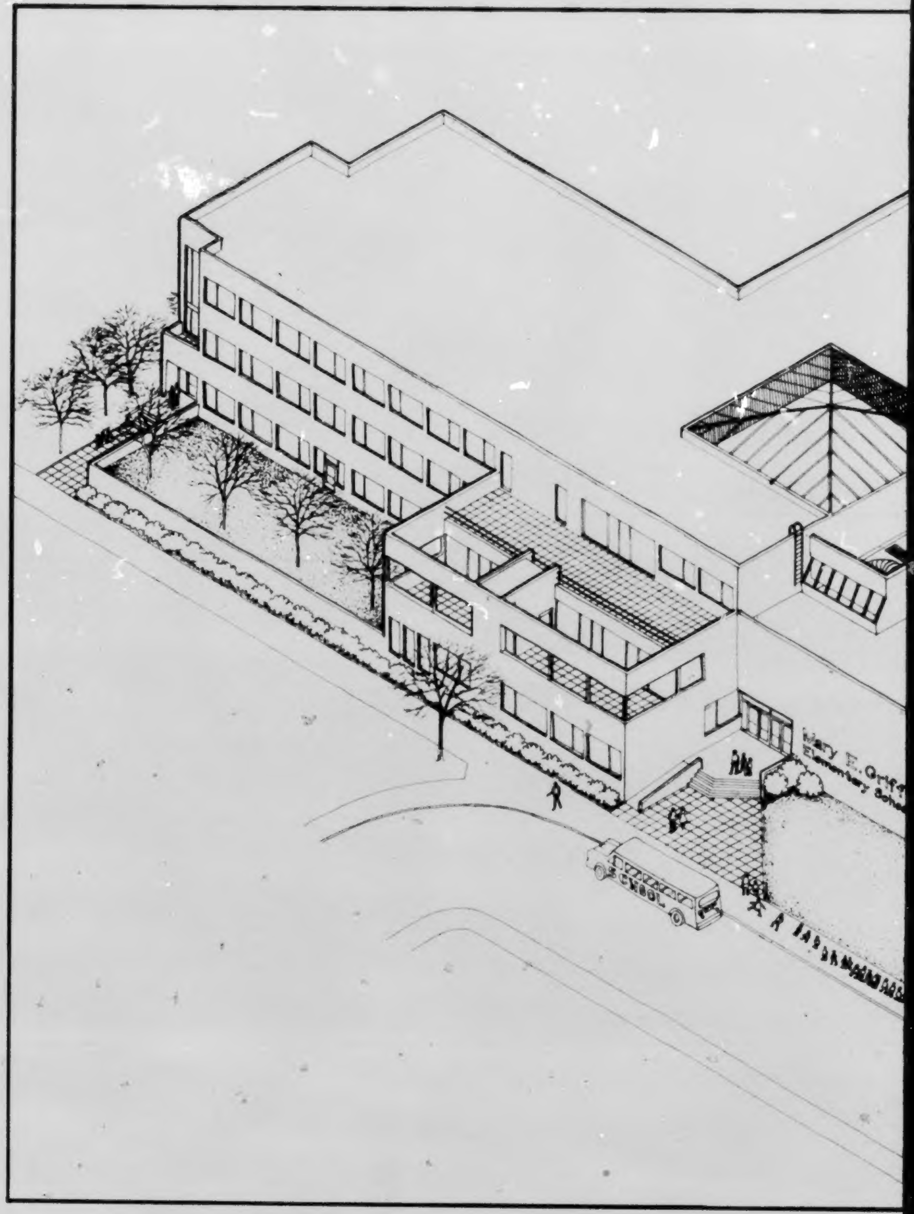
Three fundamental approaches have developed from and now underlie our study. The first is that schools, by their availability and familiarity to young people, and by the facilities they provide, attract and sometimes challenge young people. We feel that designers who want to limit property damage must take at least some responsibility for design decisions which challenge young people to damage schools and which make schools easy and inviting targets. This concept of the designer's responsibility for school design relates to the legal definition of facilities which potentially attract destructive or dangerous misuse — like swimming pools — as "attractive nuisances." The law assigns responsibility for both use and misuse of attractive nuisances to persons providing such facilities who do not predict and plan for their misuse.

Our second basic approach is that school designers must plan for the informal social and activity needs of young people as well as for their formal educational requirements. When normal rough play is overlooked — like that which takes place when students are on their own or when schools are not in session — a great deal of property damage occurs.

The third approach relates to a strategy for design responses. We have explored responses which provide bridges for people's needs as opposed to setting up fences which stand between them and their desires or needs. An analogy can best describe this distinction: if a child needs to cross a river but does not know how to swim, there are several ways to deal with the problem. The first is to build a high fence on the river's edge to keep the child away. Depending on the child's need to cross the river, and depending on how much he is challenged by the fence itself, he may climb it, break it down or cut through it, and eventually drown anyway. On the other hand, if a bridge is built to the other side, the child can achieve his own goals safely and without doing harm to any property. We are concentrating our efforts to find solutions which act as bridges to meet the needs of school users, rather than those which act as challenging fences.

Since most schools have not been designed in this way, they often invite property damage. The following guidelines present specific problem areas which exist in most schools and which thoughtful design and small scale renovation and rehabilitation can correct. Each issue is accompanied by suggestions for possible design strategies a school district might take.

What's Wrong With This School?


Mary E. Griff
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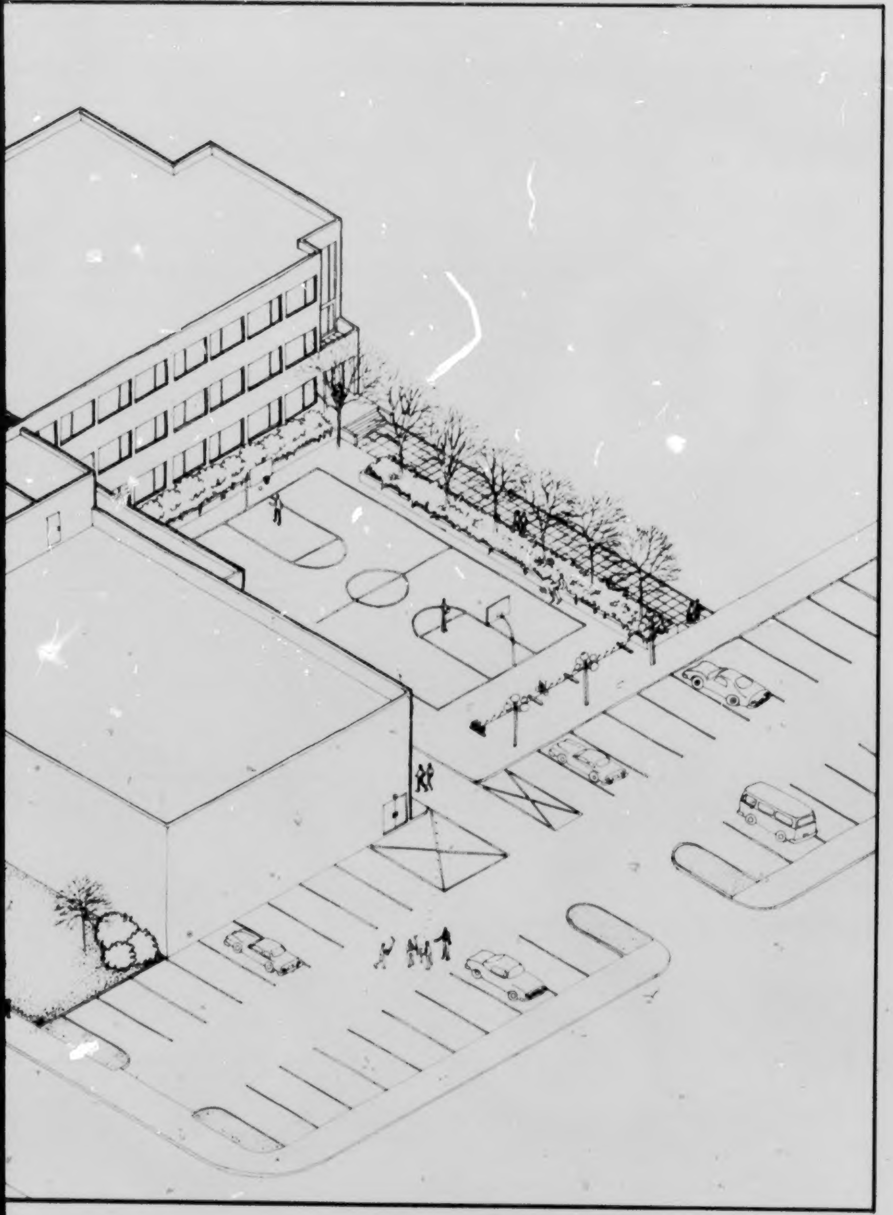

- Challenging Accessible Rooftops
- Hidden Doorway Niches
- Misplaced Decorative Planting
- Vulnerable Playground Windows
- Unnecessary Door Hardware
- Unclear Entry Statement
- Unplanned Graffiti
- Visible Panic Bars
- Misplaced Planned Pathways
- Reachable Wall Lettering
- Inviting Unplanned Hang-outs

CHAPTER 2

Exterior Design Responses

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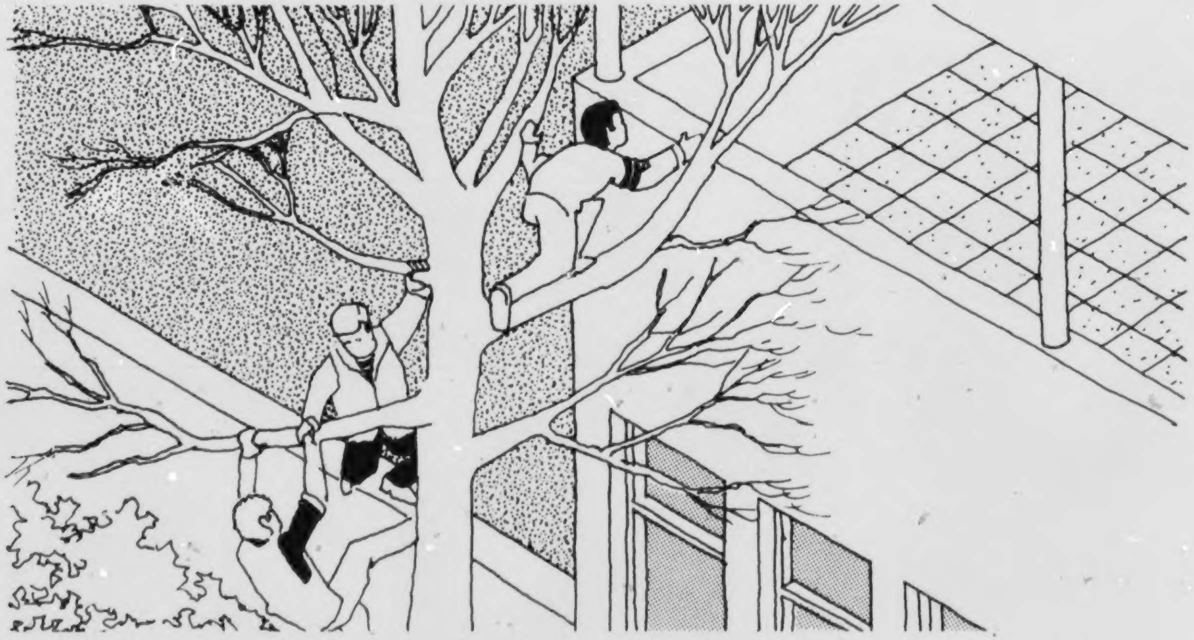
Design Issue

Ground-to-Roof Access: *Playing on rooftops is a problem if these are not consciously planned as recreation places. Problems of damage to rooftop equipment, hardware, windows, and skylights can be minimized if getting onto roofs from ground level is difficult, or if hardware on accessible rooftops is specified to accommodate rough play.*

Possible Design Responses

1. *Windows, Hardware, Fixtures:* On accessible roof areas, use ground floor type glazing, hardware, and fixtures. Avoid exterior hardware on roof doors and windows.
2. *Surfaces:* Plan exterior surfaces with no footholds.
3. *Fixtures:* Avoid unnecessary exterior fixtures on building wall that provide footholds for climbing. Place such hardware at another convenient location.
4. *Planting:* Near buildings use planting which cannot be climbed and which will not grow to a height or strength suitable for climbing.
5. *Planting:* Locate planting which can be climbed far from walls.
6. *Telephone Poles:* Remove built-in footholds from telephone poles adjacent to building.
7. *Wall Heights:* Design walls too high to be climbed with readily accessible ladder substitutes like standard 12-ft. 2x4's.

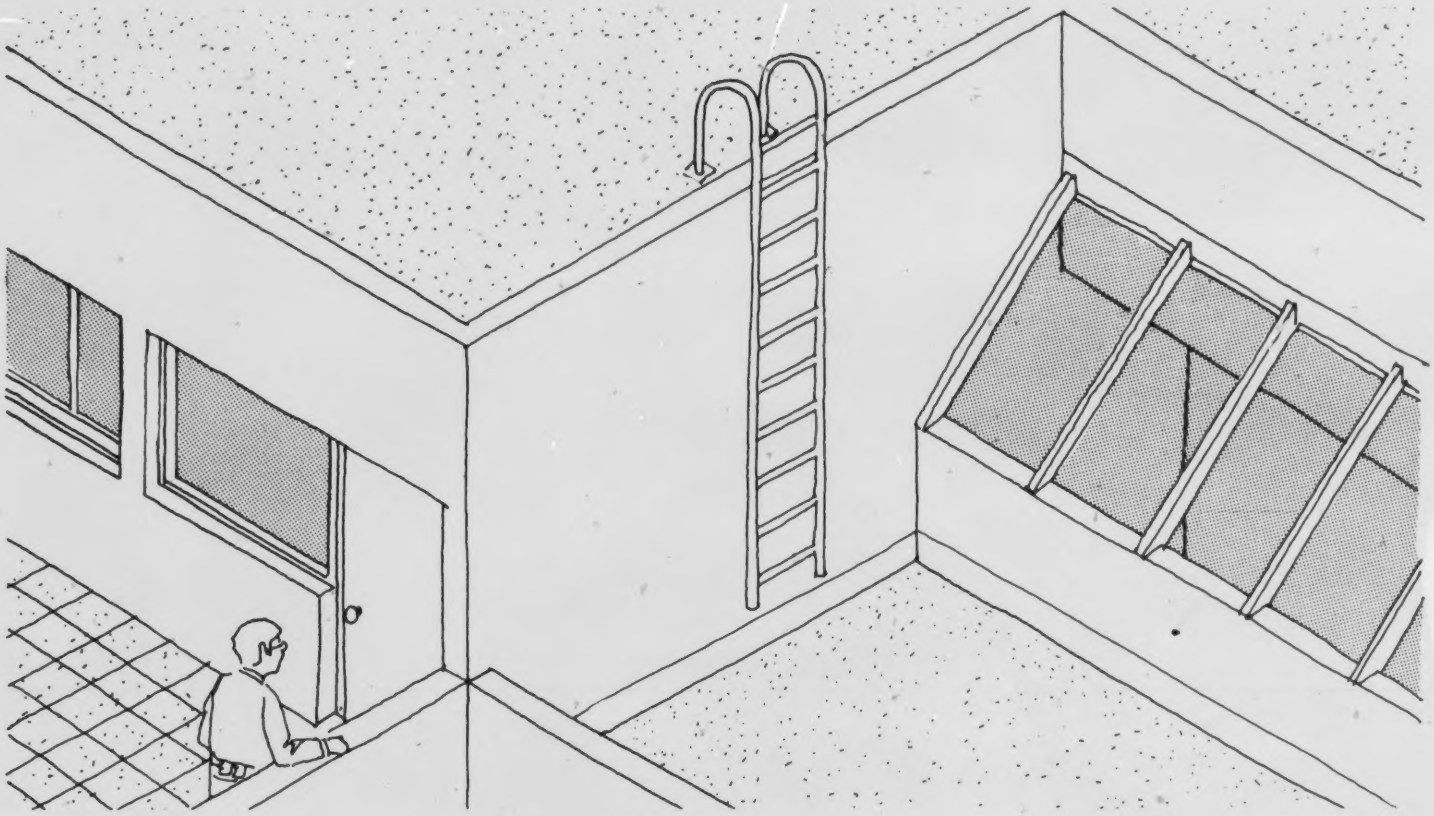


Design Issue

Roof-to-Roof Access: *Where access to one part of a roof is either unavoidable for reasons of landscaping and design or desirable because it is to be used as a play area, special care must be taken to avoid easy access to other more vulnerable roof areas.*

Possible Design Responses

1. *Incinerator:* Place incinerator and design incinerator housing so that it cannot be climbed upon.
2. *Gas Meter:* Place gas meter very low in an enclosure or very high so that it will not be climbed upon.
3. *Fixtures:* Avoid fixtures on walls which might be used as ladders, like unnecessary handles and lamps.
4. *Custodian Ladders:* Do not install permanent custodian ladders between roof levels, if local regulations allow. Provide convenient storage for portable roof ladders to be used by custodians.
5. *Roof Heights:* Plan the height of roofs so that they cannot be reached from other roofs by a 12-ft. 2x4.
6. *Railings:* Avoid roof guard rails and half walls which provide easy jumping off points for adjacent roofs.
7. *Wall Heights:* Design walls too high to be climbed with readily accessible ladder substitutes like standard 12-ft 2x4's.

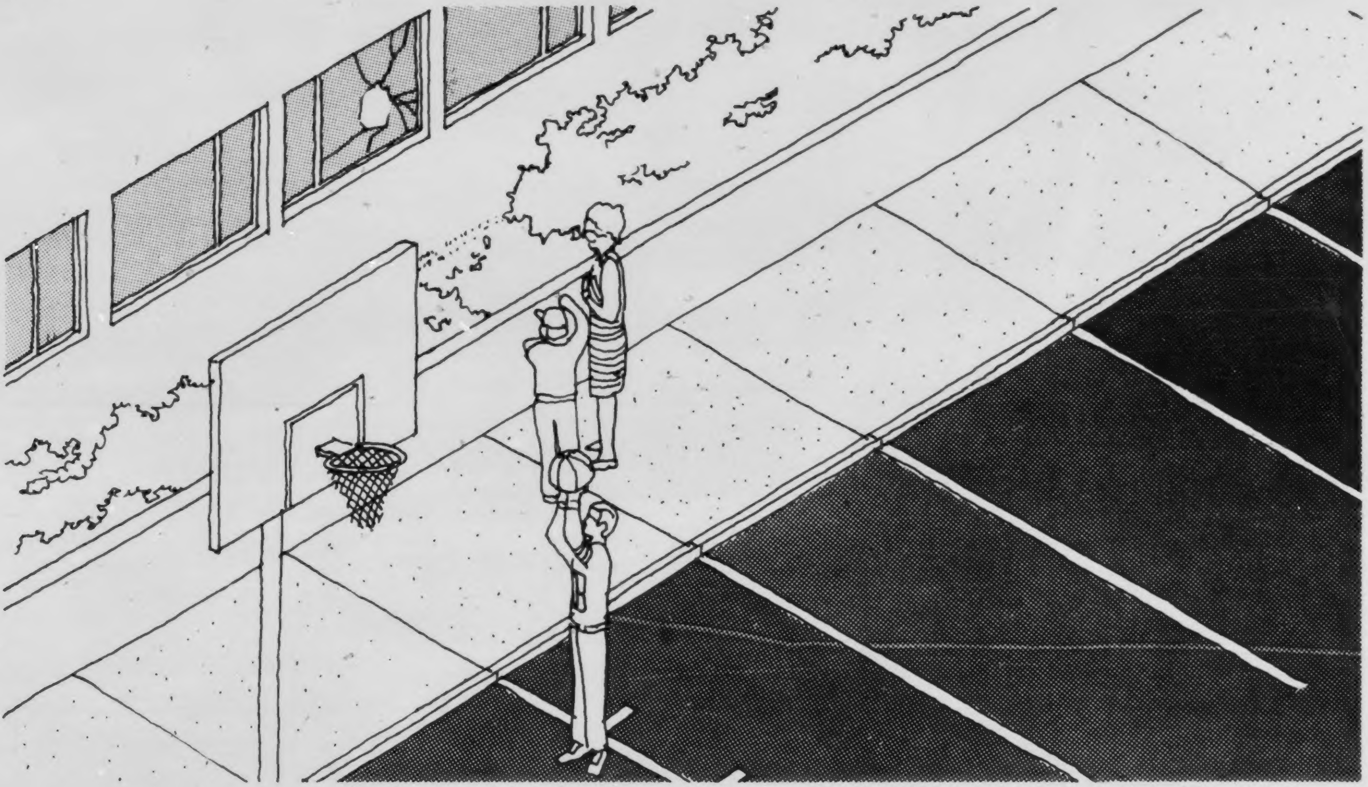


Design Issue

Formal Rough Play Places: *Some open spaces around schools are formally planned as basketball courts or baseball fields. Although it seems obvious to stress that walls around such areas must be specified to withstand stray balls, school planners often overlook this. Schools then end up having a series of breakable windows within easy reach of a home run.*

Possible Design Responses

1. *Surfaces:* Make play areas usable. Avoid hindrances to normal play, such as surface irregularities or inadequate space behind the backboard.
2. *Walls:* Install wall surfaces which bounce balls back to players.
3. *Fixtures:* Specify low lighting and other hardware out of the way of ball playing.
4. *Game Lines:* Paint lines on walls and on ground to accommodate all local street games. This can be done in cooperation with young people.
5. *Buffer Area:* Provide a buffer between formal play areas and school buildings, to clearly delineate the difference. This buffer might be ground sloped away from the school, a symbolic fence, or a sitting area for spectators.
6. *Glass:* Eliminate glass around rough play areas, or protect glass there in an attractive way.
7. *Planting:* Avoid planting immediately adjacent to formal play areas which might be damaged by children chasing stray balls.



Design Issue

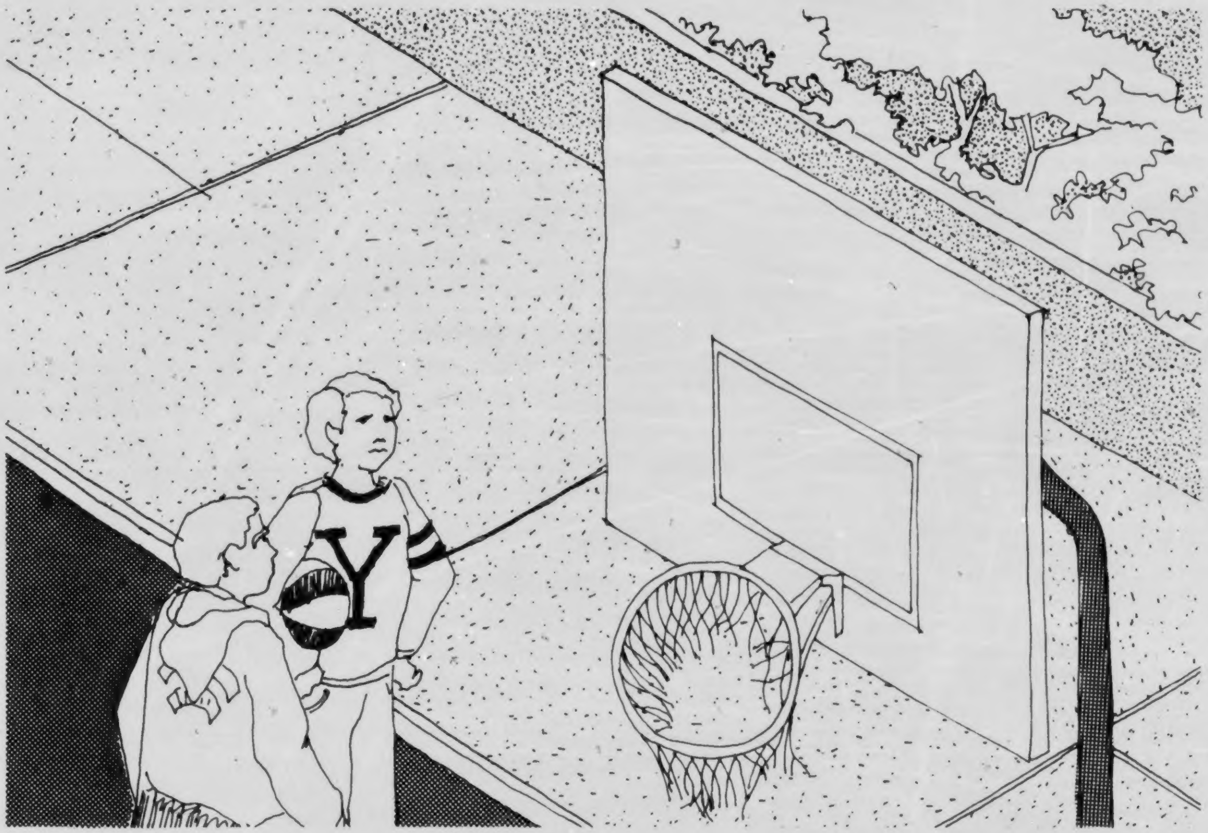
Playground Equipment: *Playground equipment is designed to withstand specific amounts of use. What is durable enough for a small rural school might be useless in another more active location.*

Since playgrounds are one of the few acceptable areas where students can expend as much energy as they want, equipment there must permit them to use this energy without risk of damage.

Even strong play equipment is sometimes inadequate to handle "normal" rough play. For example, it is seldom realized that a series of poorly executed dunk shots will rip a basketball net and bend the hoop, even in "normal" rough play.

Possible Design Responses

1. *Equipment:* Choose playground equipment that will withstand the roughest use to which it might be put, even if this use is not "official," i.e., teenagers sitting on children's swings.
2. *Equipment:* Choose playground equipment that cannot be disassembled with simple hand tools readily available.
3. *Equipment:* Do not repair often damaged equipment that will only be broken again. Replace it with equipment that will withstand more rough use.
4. *Equipment:* Maintain play equipment so that it works properly, because improper installation invites damage. For example, a basketball hoop installed at an angle may get broken when players try to adjust it.



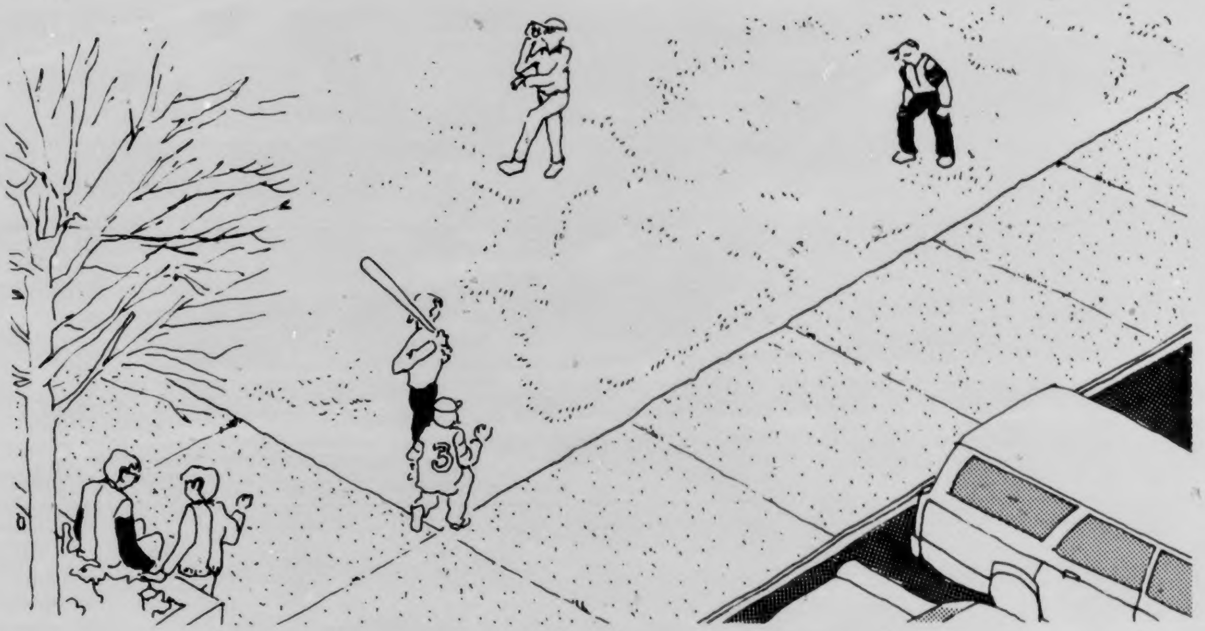
Design Issue

Pick-up Play: *Much recreation in school open spaces takes place during recess, after school, or on weekends. Children or teenagers gather around the school for informal games of street hockey, basketball, stick ball, soccer, or catch. These games generally require minimal equipment which participants bring from home, a hard ground surface large enough for throwing ball, and a wall to serve as an impromptu backstop.*

Formal play areas are sometimes used as pick-up play places — for instance basketball courts may be used to play a game of stick ball. At other times pick-up games take place on the plaza in front of a school, or in the children's play yard — if these provide a backstop and a hard surface. Different parts of the country and different areas of a city will have their own special pick-up games and most neighborhood groups do have some kind of pick-up games.

Possible Design Responses

1. *Location:* Consciously identify and develop places well suited to informal pick-up play.
2. *Lighting and Fixtures:* Move lighting and other fixtures out of the way of potential pick-up ball playing.
3. *Walls and Ground Surface:* Treat ground and wall surfaces in informal game areas as if they were formal play areas: install wall surfaces which bounce balls back to players; remove ground surface irregularities; paint lines on walls or ground for street games.
4. *Glass:* Eliminate glass around areas predicted to attract informal pick-up games, or protect glass there attractively.



Design Issue

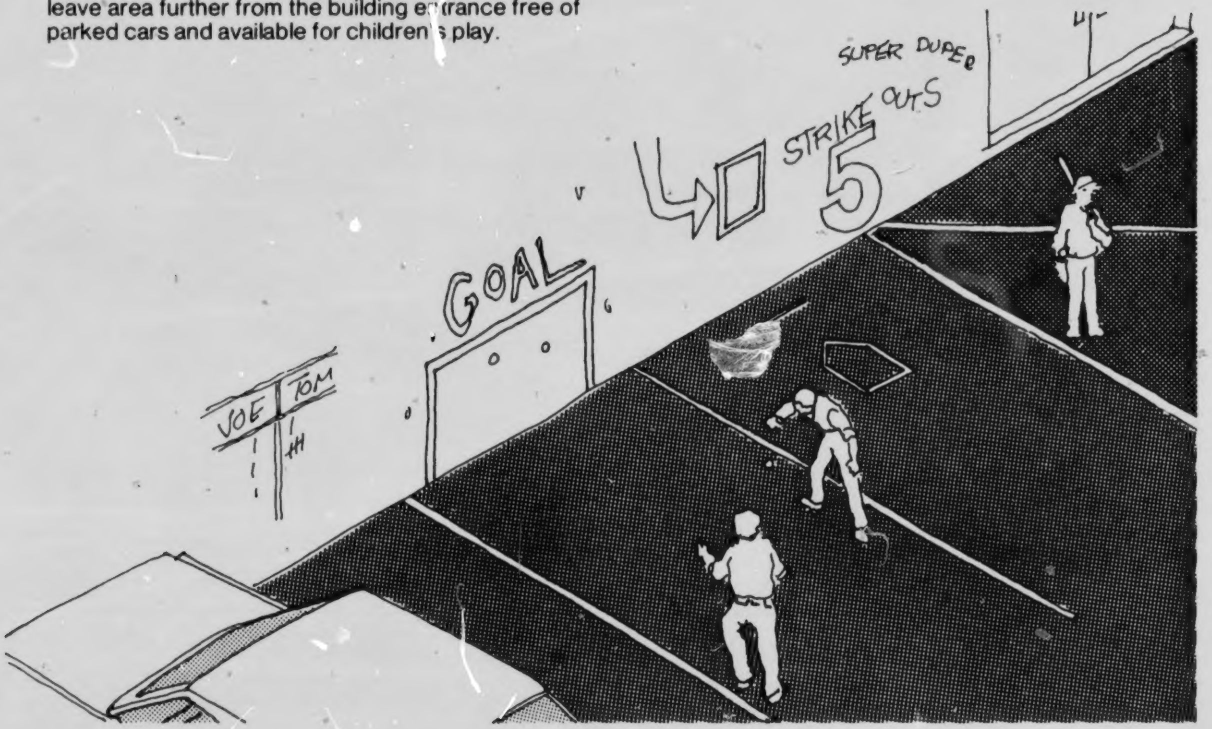
Pick-up Play in Parking Lots: *Students often use parking lots to play street hockey or other pick-up games.*

If a few cars are parked haphazardly throughout a lot used for play, one or more cars are likely to be in the midst of a play area and therefore be likely to be damaged unintentionally.

Also, parking lots rarely have the fencing necessary to prevent a ball from travelling out of the lot and through a neighbor's or the school's window.

Possible Design Responses

1. *Location:* Plan parking lots as informal pick-up play areas.
2. *Closure:* Specify fixtures so that parking lots can be closed to automobiles on weekends and during evenings when there are no planned activities at the school.
3. *Fences:* Erect a fence in strategic locations around the parking lot to prevent balls, pucks, or other objects from breaking windows or entering adjacent private property; not to keep children out.
4. *Size:* Design larger parking lots so that parking will be concentrated in obviously more convenient spaces nearest the building entrance. This will leave area further from the building entrance free of parked cars and available for children's play.

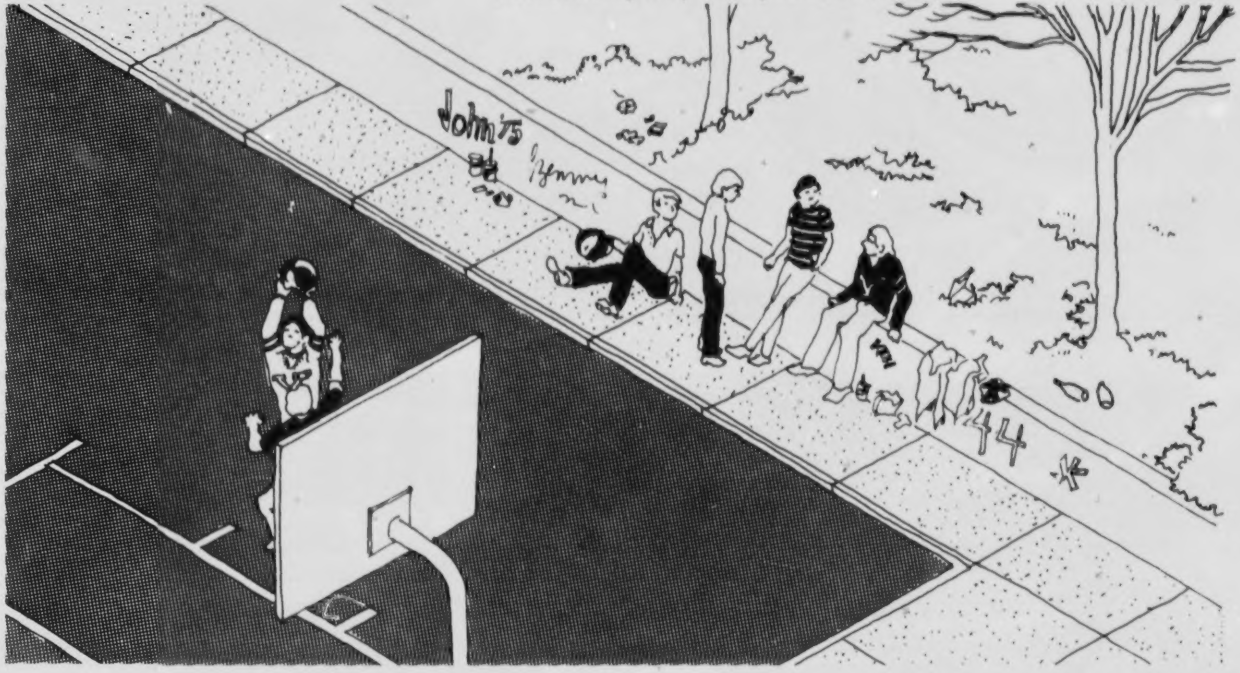


Design Issue

Hang-out Areas: *Hang-out areas are places next to formal and informal play places and near active walkways, where people sit to watch games, to be seen by others passing by, and to talk to one another. These areas are distinguished by having walls, steps, benches, or tree stumps to sit upon; by being points from which to observe and comment on games nearby; and generally by being visible to adjacent public areas.*

Possible Design Responses

1. *Location:* Predict, identify, and prepare appropriate hang-out areas for inevitable informal use.
2. *Fixtures:* Avoid nearby fixtures which can be easily removed or damaged by kids sitting. Use tamper-proof screws in this location, and strengthen hardware and fixtures which must be there.
3. *Windows:* Remove or protect nearby windows.
4. *Planting:* Specify planting which bends easily and grows quickly. Avoid planting which will be easily damaged by being scratched, burned or broken.
5. *Benches:* Provide benches for sitting far away from breakable windows, hardware, or planting.
6. *Planters and Steps:* Specify extra durable materials for steps, low walls, and planters in hang-out areas, because they will probably be used to sit upon.
7. *Trash Containers:* Install heavy trash containers which will be emptied regularly and which make burning of rubbish difficult, i.e., not the open basket type.
8. *Trash Containers:* Use garbage cans which seem like targets for beer and soda cans, as an attraction for litter disposal.
9. *Planters:* Avoid planting containers which can be easily used as trash baskets in hang-out areas.
10. *Materials:* If bricks or other small-unit building materials are used in hang-out areas, maintain a stock of spares to allow quick and easy repair. This cuts down "epidemic" vandalism in which slight damage quickly leads to greater damage.



Design Issue

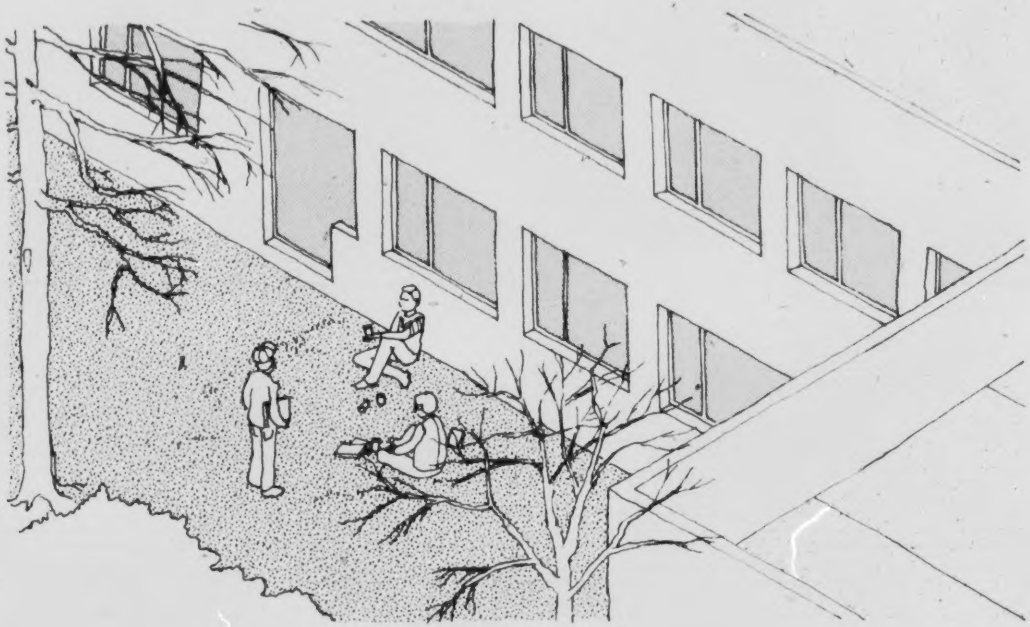
Watering Holes: *Partially hidden areas around schools which are large enough for small groups of children and teenagers to sit in together provide groups of local kids with informal clubhouses. These places are the least officially sanctioned play areas and are often considered trouble spots by custodians and school administrators. Property damage occurs in these places ranging from graffiti to broken bottles; from broken hardware to destroyed trees; from burnt and broken windows to breaking and entering.*

For urban teenagers, such places are the club's turf. "Watering holes" adjacent to schools are places for get-togethers. Kids do not have any place else. They can't have parties at home; formal social clubs are too structured.

People just sit and talk there; sometimes they drink beer (hence the name "watering hole") or smoke. They almost always rough-house and write their names on the walls.

Possible Design Responses

1. *Location:* Identify "watering holes" and design such areas to withstand sustained and often destructive use and abuse.
2. *Fixtures and Hardware:* Specify highly durable hardware and fixtures in these areas, and locate them out of reach.
3. *Windows:* Avoid fenestration in watering holes.
4. *Walls:* Install wall and ground surfaces here which can be written on, which can withstand abuse, and which can be easily maintained and painted.
5. *Planting:* Specify planting which cannot be easily damaged by being scratched, burned, or broken. Specify pliable fast growing shrubs, rather than trees in such areas.
6. *Planters:* Avoid planting containers which can be easily used as trash baskets.
7. *Trash Containers:* Install heavy trash containers which seem like targets for litter and which cannot be used for burning trash. Empty them regularly.
8. *Materials:* If small-unit building materials like bricks are used in watering holes, there is a good chance for "epidemic vandalism" in which slight damage attracts attention and leads to cumulative damage. Having a stock of bricks and mortar available for quick repair of small damage and getting custodians to do so can reduce "epidemic vandalism."
9. *Wall Panels:* Avoid modular wall panels in watering holes. These are often removed just to prove that the school is vulnerable, even if not used to enter the building.

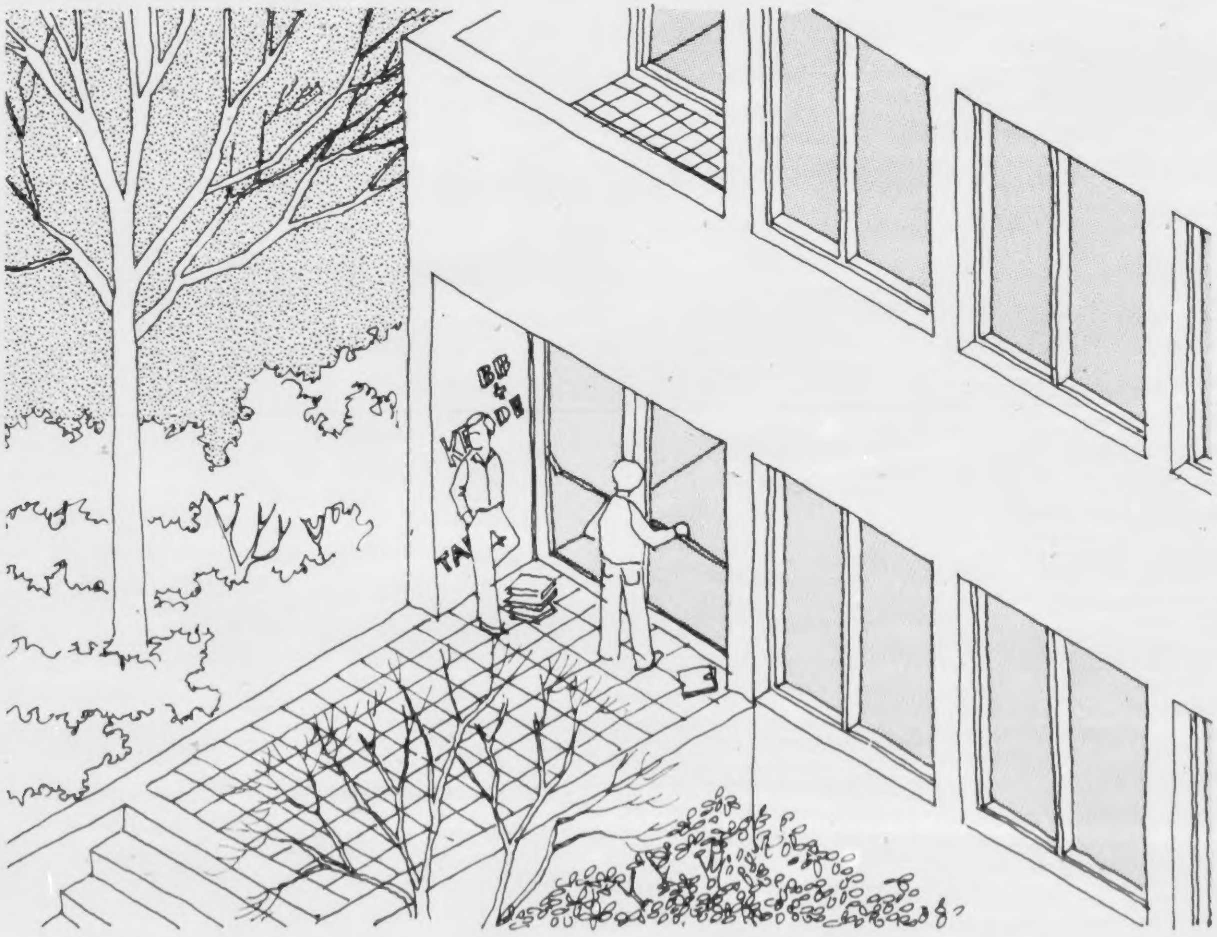


Design Issue

Niches: *Small spaces just large enough for one or two people are called "niches." For example, they are created by fire stairs adjacent to walls, depressed entrances, or delivery docks. These places are used for, among other things, prying at windows or picking locks, smoking, or drinking secretly.*

Possible Design Responses

1. *Doorways:* Avoid useless doorway niches by extending existing doors to building perimeter.
2. *Fixtures and Hardware:* Specify as few reachable fixtures and as little hardware as possible in niches.
3. *Door glass:* Specify glass-free doors through which locks cannot be seen.
4. *Door Hardware:* When possible, avoid all exterior hardware on doors in niches.

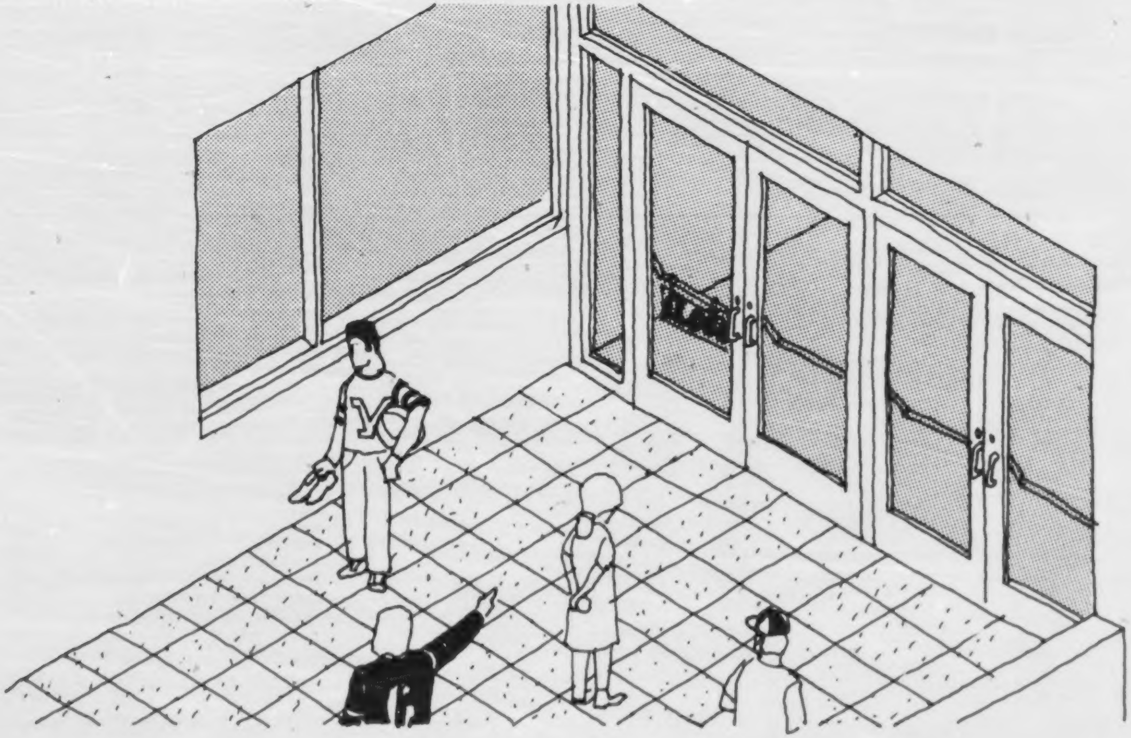


Design Issue

Clarity of "Come In" and "Stay Out" Statements: *School architects sometimes feel that major building doorways represent the "face" of the school towards the community. Wanting to involve the community in the life of the school, these planners design doorways which are often seen as inviting when the school is closed, as well as when it is actually open. Easily broken glass panels are the only barriers to interior door locks. Because of their accessibility, some school entrances designed originally to be inviting are soon either covered with chain-link fencing, plywood, or locked with bicycle chains during the night. To avoid this, the building must be designed to be inviting when the school is open, and to express the fact that the school is tightly shut after school hours, evenings and weekends.*

Possible Design Responses

1. *Sliding Grills:* Install sliding grills or garage-door type gates which can be pulled down over transparent doorways when the building is closed.
2. *Gates:* If deep recesses are planned, at building entries, avoid their being accessible when school is not in use.
3. *Doorways:* Design doorways so that it is clear from a distance that the school is closed when it is closed, but that it is open whenever the school is in session or a program is being conducted inside.

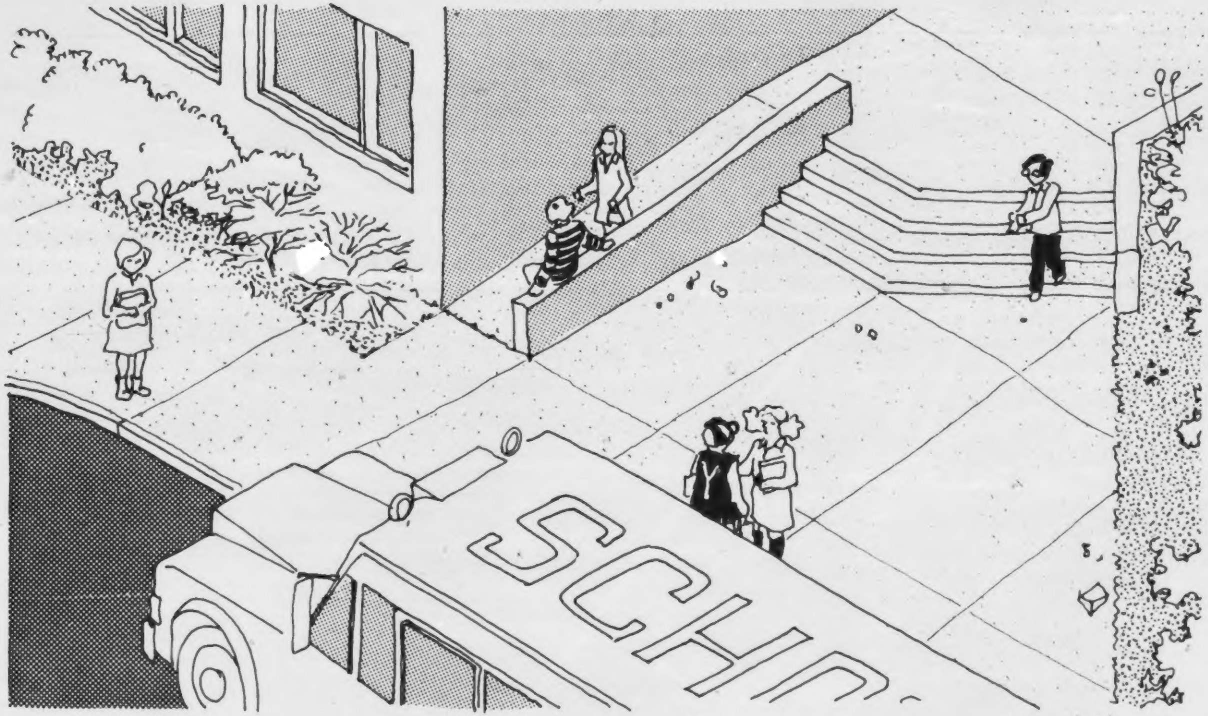


Design Issue

School Bus Drop-Off at Entry: *When entrance areas are used for loading and unloading school buses, they become extra heavily used student hang-out areas. As such, they often receive more use and abuse than they were designed to withstand.*

Possible Design Responses

1. *Location:* Locate bus stop areas near entrances but in open and visible areas, away from windows.
2. *Waiting Areas:* Provide conveniently planned waiting areas as far as possible from hardware, windows, and other equipment at building entrances.
3. *Fixtures, Windows, Hardware:* Treat hardware and fenestration at entries according to recommendations for hang-out areas.
4. *Glass:* If possible, avoid large amounts of glazing in entrance doors and around entry areas.

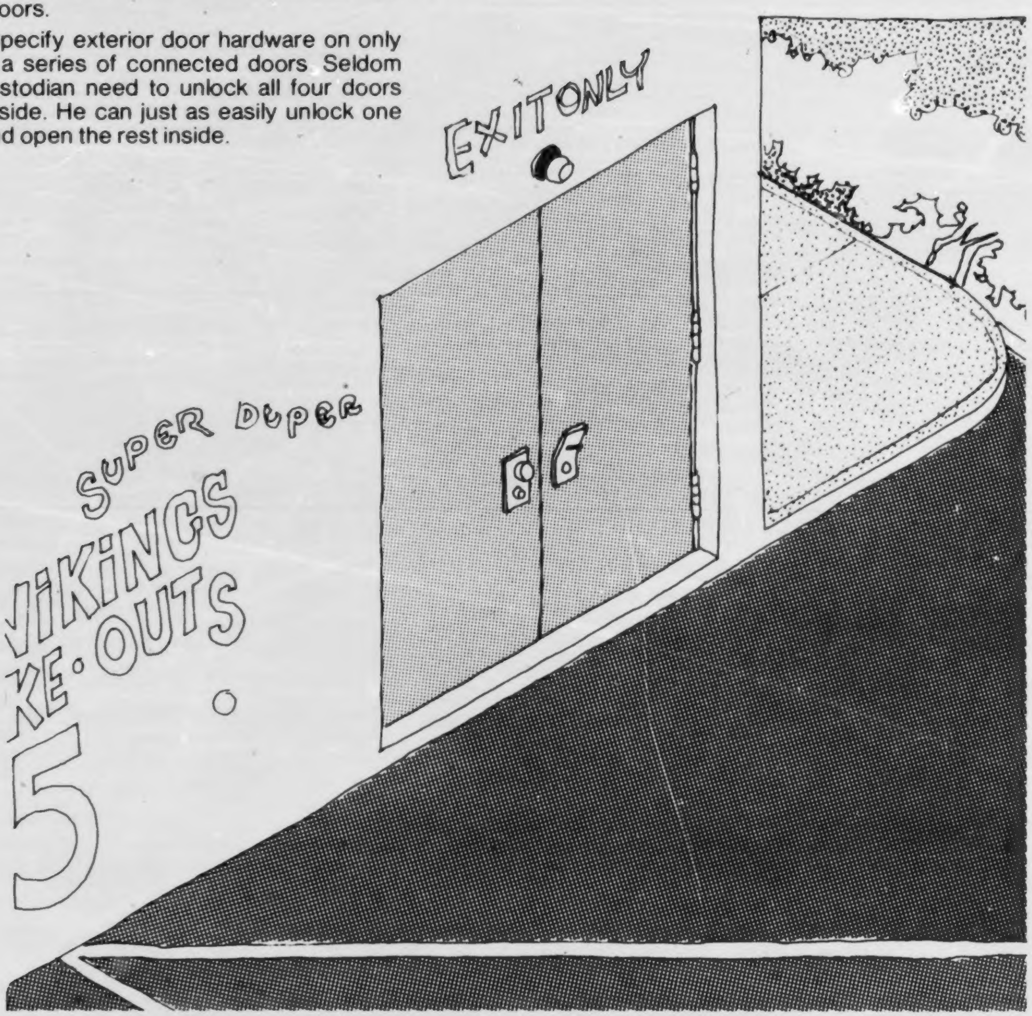


Design Issue

Exterior Door Hardware: *One common problem in schools is that exterior hardware is uniformly specified for all doors, although many doors hardly ever need to be accessible from the outside. This is true for secondary exits in gyms, some doors to storage areas, and other doorways.*

Possible Design Responses

1. *Hardware:* Systematically identify all doors used primarily as exits, and remove locks and handles from these doors.
2. *Hardware:* Specify exterior door hardware on only one door in a series of connected doors. Seldom does the custodian need to unlock all four doors from the outside. He can just as easily unlock one with a key and open the rest inside.



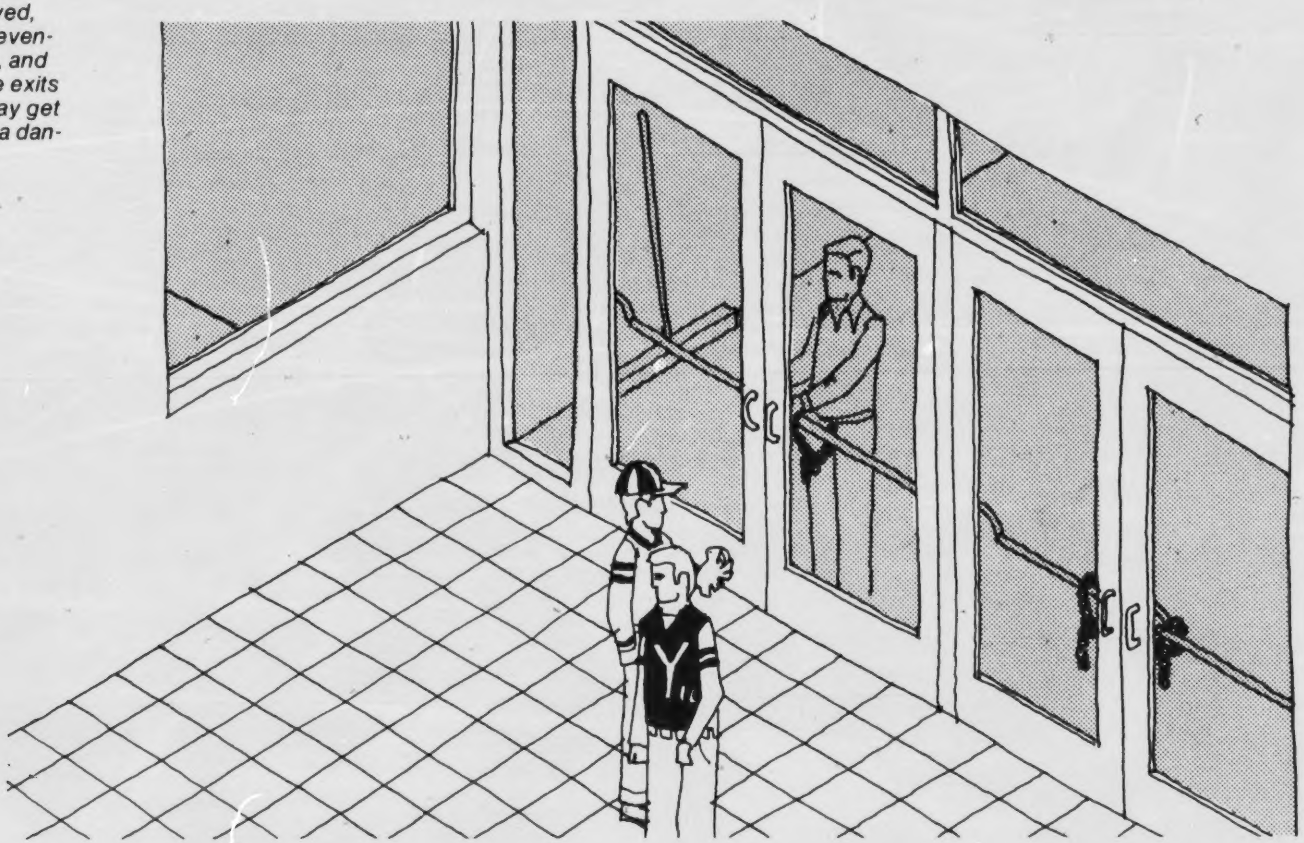
Design Issue

Panic Hardware: *There is a conflict between the need for school users to get out in case of fire and the need for custodians to keep everyone out when school is closed. Panic hardware usually meets the first need, but dismally fails in meeting the second. A bent coat hanger often opens panic hardware from the outside.*

When this problem is not resolved, custodians in existing schools eventually buy bicycle chains, locks, and five foot long 2x4's to make fire exits impermeable at night. These may get left on during the day, creating a dangerous situation for fire safety.

Possible Design Responses

1. *Door Glass:* Avoid clear glass or acrylic panels on doors and near doors which may give a clear view of accessible panic hardware.
2. *Astrigals:* Specify astrigals on single doors with panic hardware, where regulations allow.
3. *Center Mullions:* Specify extra duty double doors with center mullion and astrigals.
4. *Panic Hardware:* Specify panic hardware which requires a minimum amount of mechanical movement to operate successfully.
5. *Panic Hardware:* Specify panic hardware which can be easily repaired if damaged.

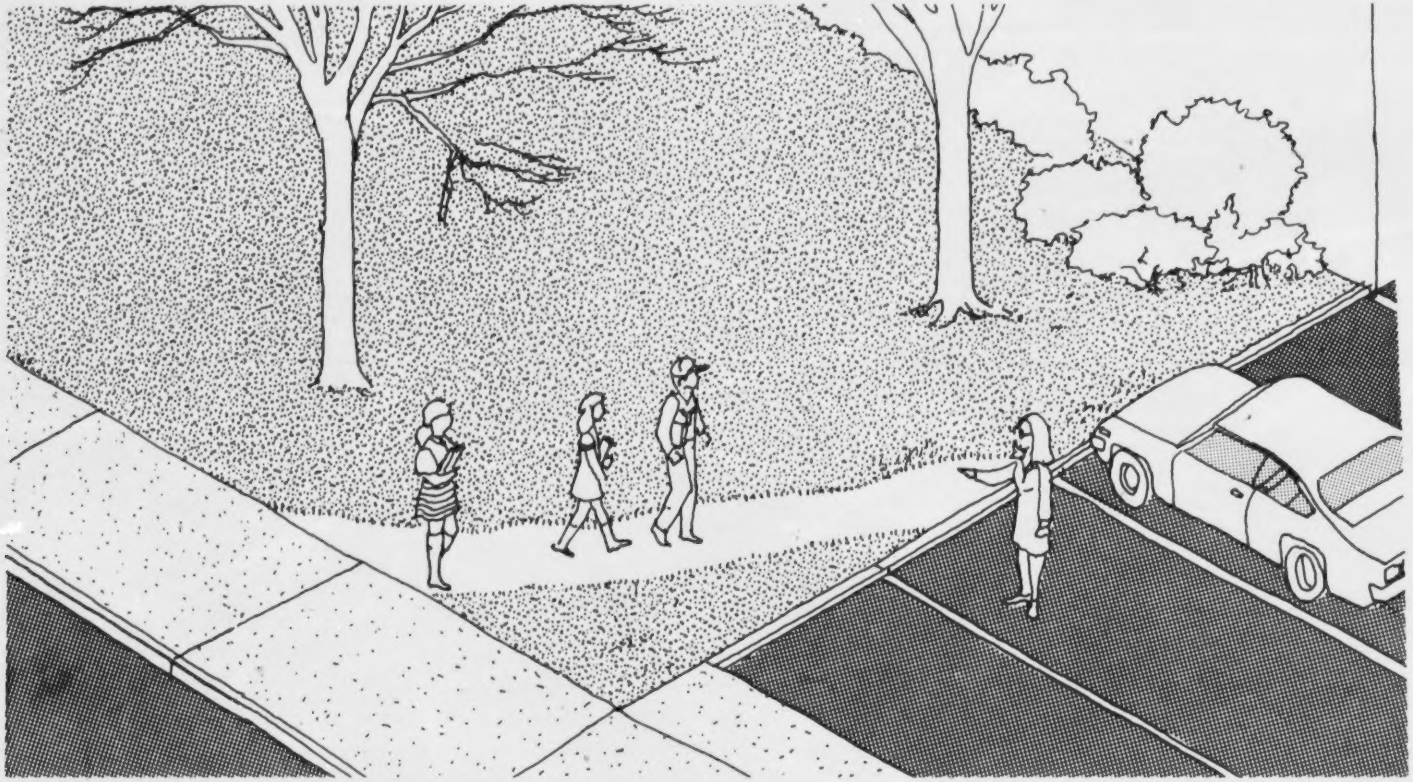


Design Issue

Pathways: *Official pathways around school grounds often reflect the designer's wishful thinking, rather than the students' and teachers' needed circulation links. As a result, a route crossing the grass is often chosen as a path rather than the misplaced official paved walkway. In addition, soft surfaces and planting next to heavily used paved areas are readily trampled.*

Possible Design Responses

1. *Location:* Plan paved pathways so that they provide the shortest walk between the two points they connect.
2. *Location:* Accept as legitimate and predict location of naturally made shortcut paths.
3. *Paving:* Pave pathways where natural shortcuts have developed, after the building has been in use for six months.
4. *Barriers:* Install or landscape subtle but real barriers, like a change in level, between hard traveled pathways and adjacent soft areas, like grass. This will not prevent people from walking there, but it will decrease it.
5. *Grass:* Remove soft materials like grass or flowers which are immediately adjacent to narrow paths or parking lots.

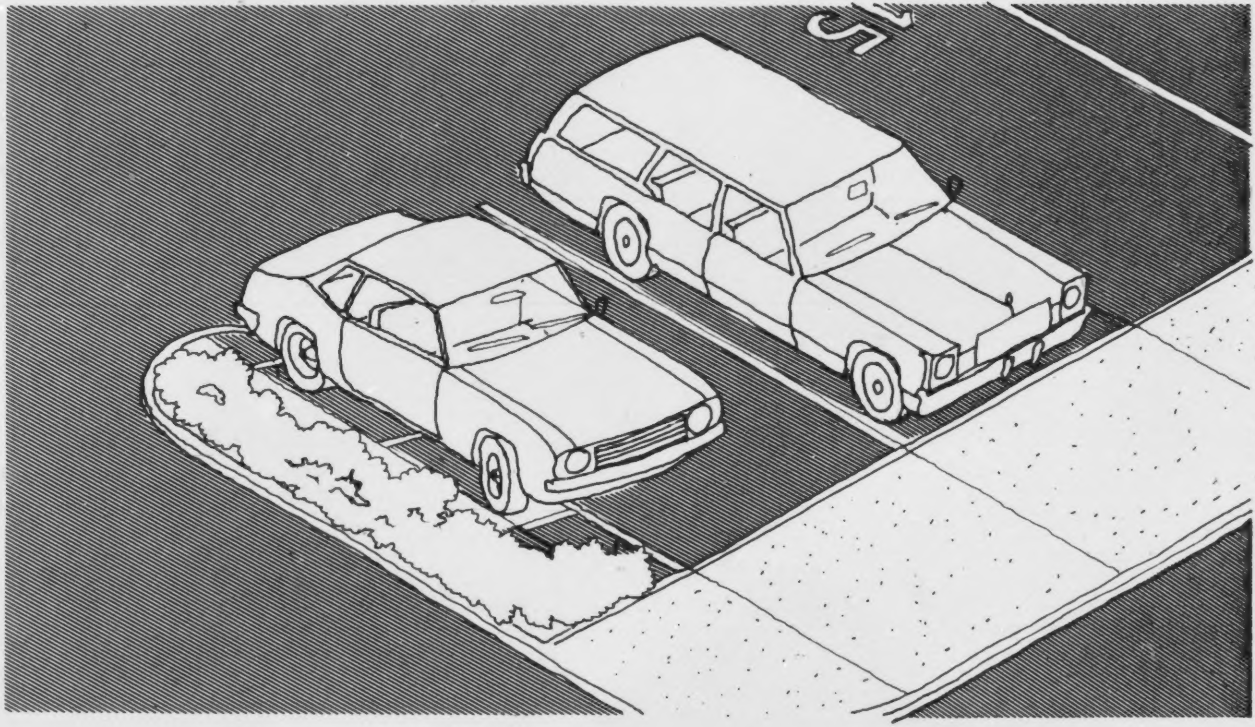


Design Issue

Parking Lot Boundaries: *In many schools, automobiles will be parked on grassy areas adjacent to parking lots or driveways. Unpaved areas are often used to turn around on when leaving. If this is done continually, the result is an unintended dust or mud pond.*

Possible Design Responses

1. *Curbs:* Erect a curb, a change in level, or some other similar low barrier to keep cars on paved surfaces and off soft grassy areas.
2. *Turn-arounds:* If drivers need a place in which to turn around, design a paved, curbed turn-around area to meet the need.
3. *Grass:* Between parking lots and buildings, avoid small decorative patches of grass which will soon be destroyed by cars.



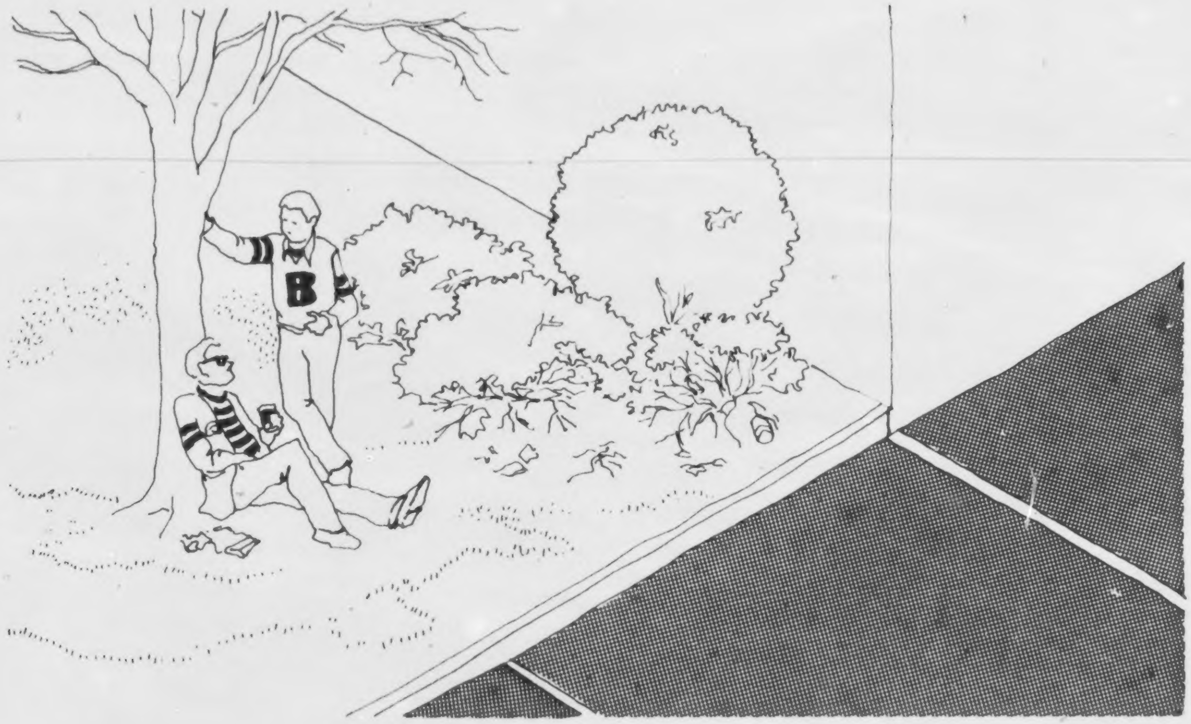
Design Issue

Planting: *Planting on school grounds is often specified with a direct but misguided logic: "Because damage may occur to plants, have stiff, unbreakable plants." Unfortunately, stiff also means brittle, and these plants break more easily than do more pliable ones.*

Another logic dictates: "Since kids mess up bushes by running through them, have thorny bushes which keep kids out." Unfortunately, thorns collect debris and also keep out custodians who might otherwise clean up around the plants.

Possible Design Responses

1. *Planting:* Near active areas, specify bendable, resilient planting and avoid stiff, breakable planting like unprotected young trees.
2. *Planting:* In decorative areas specify planting such as trees or bushes with no thorns, which does not readily collect litter, and is easy to rid of litter.
3. *Planting:* Avoid climbable planting near edge of building.
4. *Planting:* Avoid planting in predictable pick-up play and hang-out areas, and in watering holes.

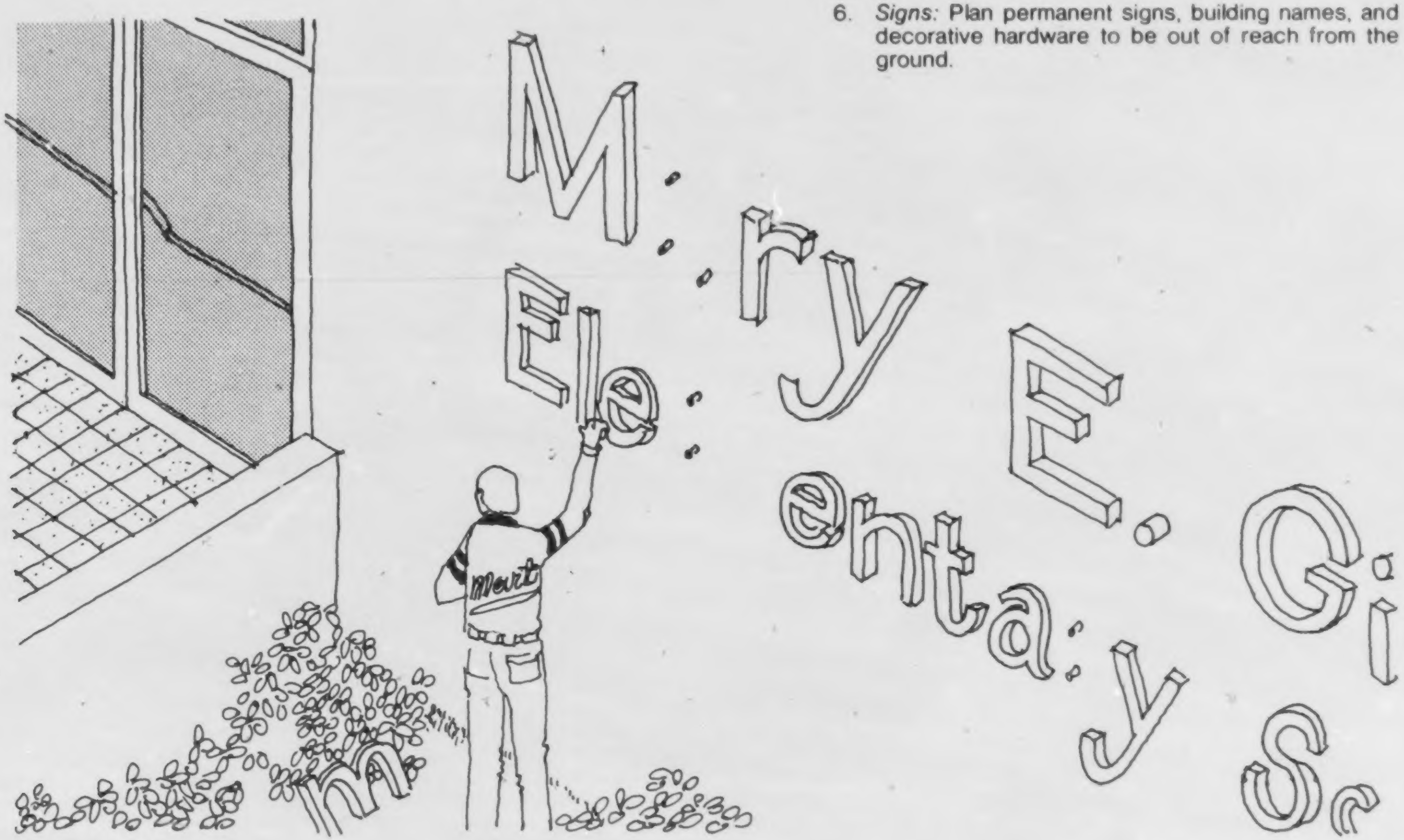


Design Issue

Walls: *Walls are highly prone to the "epidemic effect" of vandalism. If one scratch is left for a long time, or one pane of glass broken, there is a high probability that further damage will occur around the same spot. Conversely, quickly repaired damage is less likely to re-occur.*

Possible Design Responses

1. *Wall Panel Size:* On large expanses of easily marred wall space, specify small wall sections so that rapid repair is possible. Keep replacement panels in stock, or paint for sections.
2. *Repairs:* As expensive surface materials are damaged, replace with easily and inexpensively repaired surface materials.
3. *Paint:* Paint walls with a color which is similar to the color of the material underneath. This minimizes the visibility of scratches.
4. *Paint:* In high damage areas, use specially resistant paints and glazes as high as kids can reach, to allow easy washing.
5. *Paint:* Specify quick-drying paint so that a touch-up stock can be kept for easy repair.
6. *Signs:* Plan permanent signs, building names, and decorative hardware to be out of reach from the ground.



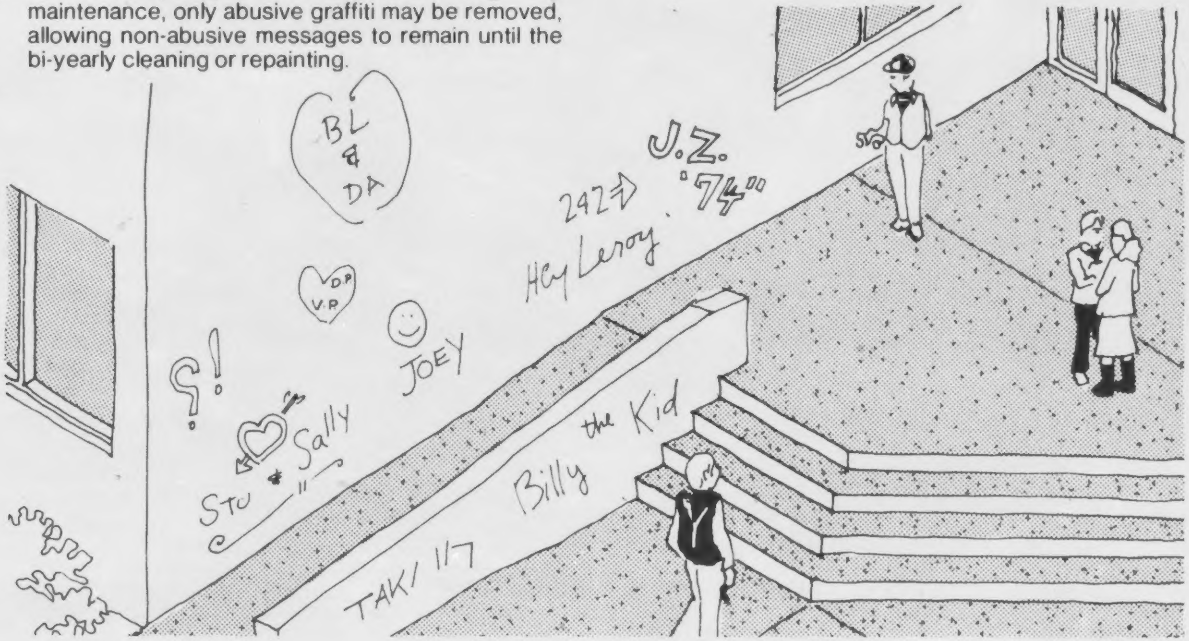
Design Issue

Expressive Graffiti: *Self-expressive graffiti takes the form of names and street numbers, love declarations, or verbal attacks. While self-expressive graffiti is often meant to be offensive, some self-expressive graffiti is an attempt by teenagers and younger children to communicate with their friends, just as adults often do through more acceptable channels. New teachers see their name in the school paper, administrators talk over the loudspeaker, and custodians sometimes have their names on the door. When students advertise themselves, they are called vandals.*

Decorative Graffiti: *Decorative garffiti, though very similar to the self-expressive type, is usually more elaborate, more colorful, and often does not contain words. Graffiti on New York City subway cars is a combination of decorative and self-expressive graffiti.*

Possible Design Response

1. *Wall Color and Texture:* Allow some walls in appropriate places to attract graffiti. These walls may be formally labeled or they can just be informally made easier to write on than surrounding surfaces. Lighter surfaces with large blocks attract more graffiti than dark surfaces. Formally labeled graffiti walls may remove the challenge aspect of graffiti, and thus may not work in specific settings.
2. *Materials:* Develop informal "graffiti walls" around front and back entries and in "watering holes." It is important that these walls be easily painted or cleaned at long but regular intervals, like every six months.
3. *Tile and Paint:* Where graffiti is to be discouraged, specify certain walls with glazed tile or epoxy paint to reduce cost of washing.
4. *Materials:* Specify surfaces so that during daily maintenance, only abusive graffiti may be removed, allowing non-abusive messages to remain until the bi-yearly cleaning or repainting.

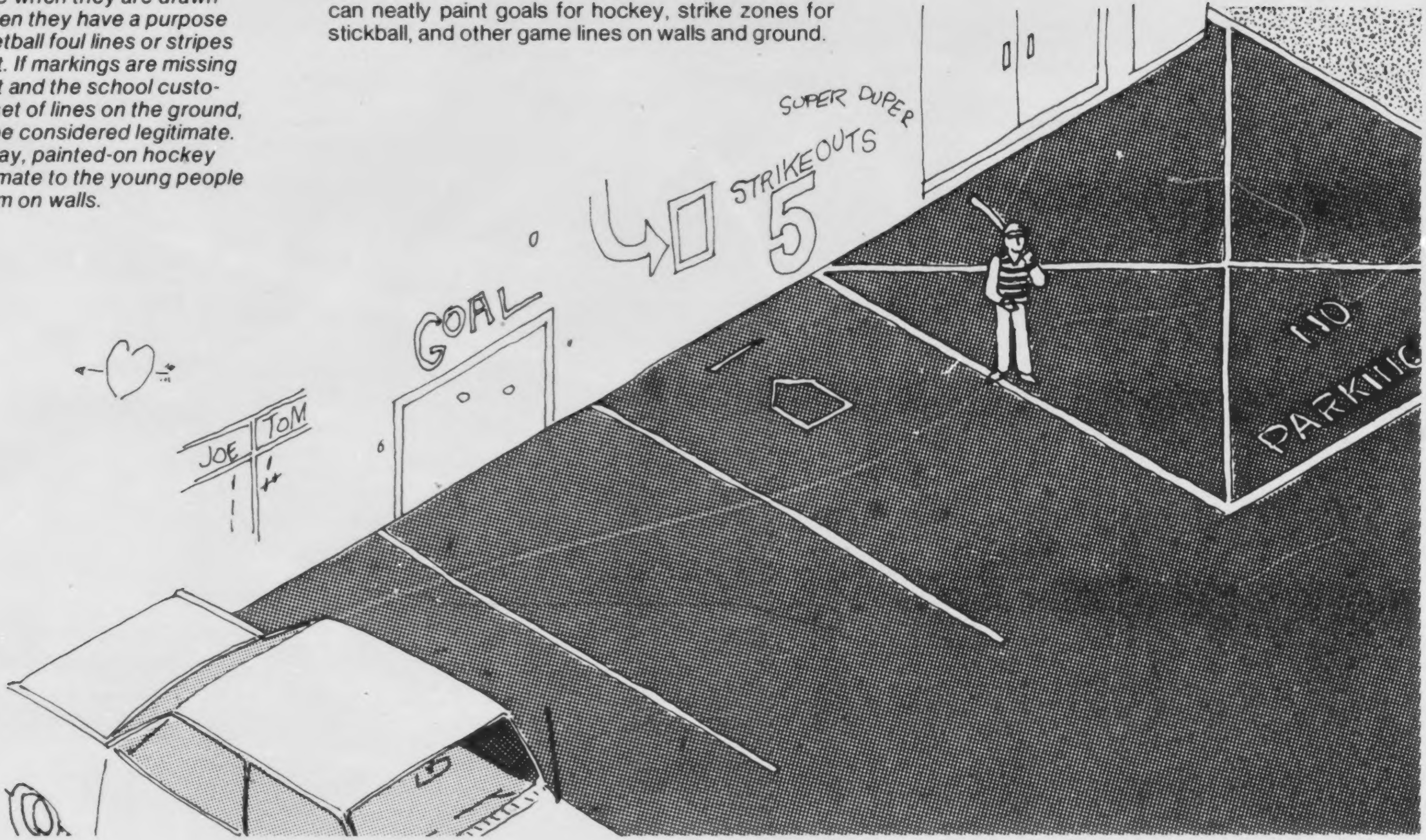


Design Issue

Legitimate Graffiti: *Legitimate graffiti is the simplest, yet most often overlooked type of marking. When there is no hockey net in the school yard and children paint one on the wall, this is considered graffiti and vandalism. Yet, lines on paving or on a wall are considered legitimate when they are drawn neatly and when they have a purpose such as basketball foul lines or stripes in a parking lot. If markings are missing in a parking lot and the school custodian paints a set of lines on the ground, these would be considered legitimate. In the same way, painted-on hockey nets are legitimate to the young people who paint them on walls.*

Possible Design Responses

1. *Location:* Acknowledge, predict, and accept "legitimate" graffiti painted by children.
2. *Game Lines:* Paint necessary game lines on appropriate walls and ground surfaces after consultations with game players.
3. *Game Lines:* Work together with street groups to provide them with stencils so that they themselves can neatly paint goals for hockey, strike zones for stickball, and other game lines on walls and ground.



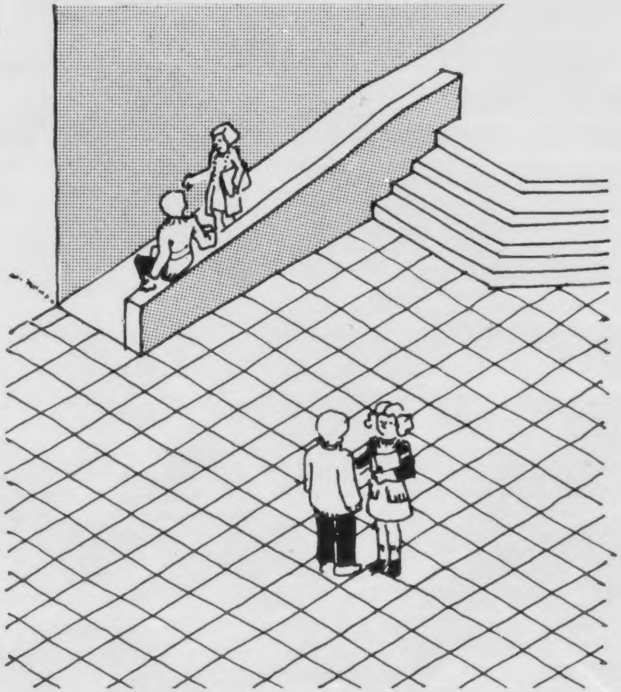
Design Issue

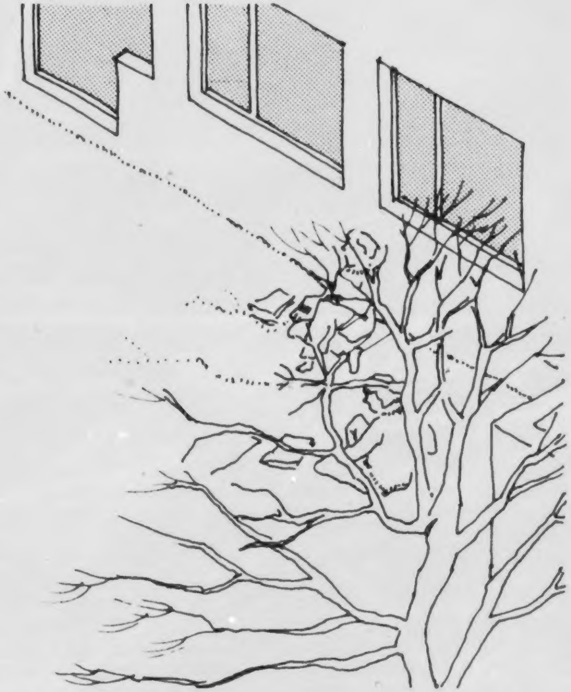
Prime Graffiti Surfaces: *Light, smooth symmetrically blocked-out surfaces attract more graffiti than do dark, rough, jagged surfaces. Unfortunately, this does not mean that if all walls in a watering hole are dark and rough there will be no graffiti. What it does mean is that we can predict that if there is a convenient choice, gffiti artists will tend to choose lighter, smoother surfaces over darker, rougher surfaces. Realizing this, school officials may informally channel graffiti onto one wall or another, specially treated to withstand such treatment.*

Prime Graffiti Locations: *Much self-expressive and decorative graffiti is written in areas with high visibility to one of two audiences: the general public and the neighborhood street group. For the general public, graffiti is written on walls near front and back entrances. These walls would be considered prime advertising space. For the neighborhood street group, graffiti occurs on walls near gathering places: in pick-up game places, in hang-out areas, in watering holes, and in niches. Graffiti here serves both as territorial marking and as a means of identifying group members. "Legitimate graffiti" occurs primarily in pick-up game and formal play areas.*

Possible Design Responses

1. *Location:* Develop "legitimate graffiti" space in both formal and informal gathering areas.
2. *Walls:* Install some informal "graffiti walls" which can easily be painted by maintenance staff at regular intervals.
3. *Surface Material:* In more public areas, where graffiti is mostly expressive, and where other more sanctioned messages might be placed, provide an easily cleaned exterior tile wall.





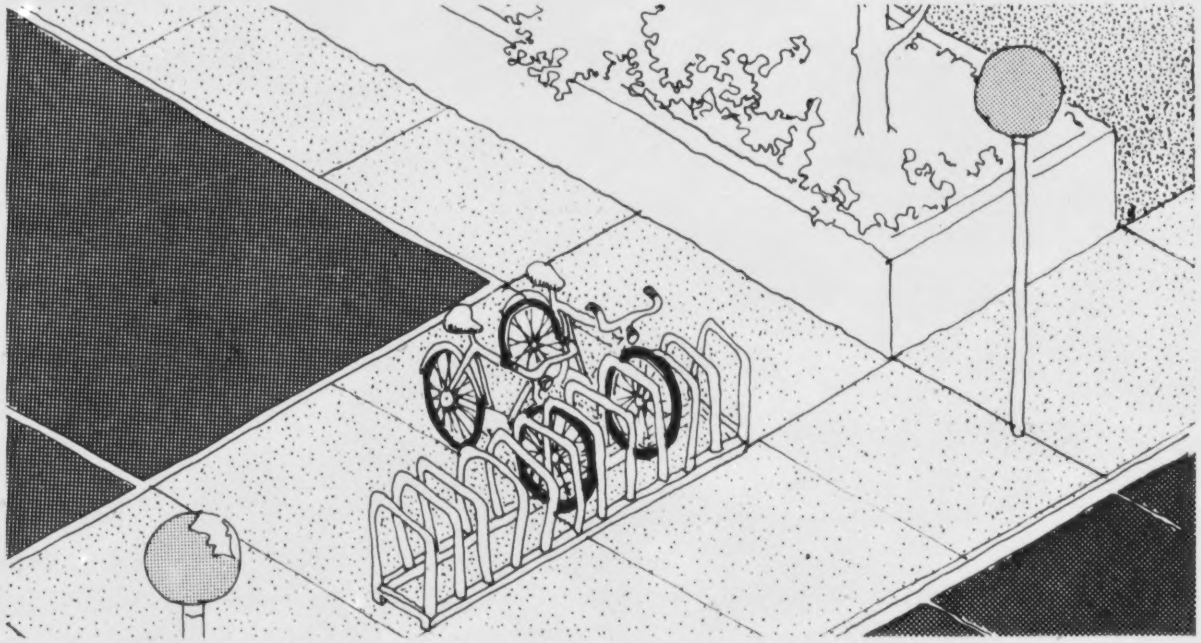
Design Issue

Hardware Fixtures: *Hardware, such as light fixtures, street lamps, walk lights, and guard rails, are often used for purposes other than those for which they were intended. In addition to being used as targets for stone throwing contests, they are swung on, leaned on, and climbed on. People rest heavy objects on hardware and generally play with them. This unintended use damages hardware and may cause safety hazards.*

Much hardware is reachable from the ground, easy to break, to unscrew, to open, to dismantle, to dent, and to damage. It is important to consider each piece of school hardware in terms of the unintended uses it is sure to get.

Possible Design Responses

1. *Fixtures:* If possible, do not place fixtures on an otherwise blank wall where they are likely to be used as targets. If for safety reasons they must be placed there, protect them by grille covers or other coverings from items that could be thrown at them, or have them recessed.
2. *Fixtures and Hardware:* Place as many fixtures and hardware items as possible high, out of reach of people stretching or holding sticks. While this may be a bit inconvenient for maintenance staff, in the long run it will reduce their work load.
3. *Fixtures and Hardware:* Remove all unnecessary exterior fixtures and hardware. For example, street lighting may be sufficient to light certain walkways and exit door areas, and some doors do not need locks because they are opened only from the inside.
4. *Fixtures and Hardware:* Avoid fixtures and hardware close to ground level. At this height it is very easy to stand on or to kick.
5. *Fixtures:* Recess as many fixtures as possible into the wall of the building and cover with a protective plate.
6. *Rain Pipes:* Avoid vulnerable rain water pipes which are below 6 ft. from the ground.
7. *Lighting Fixtures:* Specify armor plate glass for lighting fixtures near the ground. Avoid plastic covers.
8. *Equipment:* Kids play hard — provide sufficient durable official equipment to reduce overuse of hardware for play.

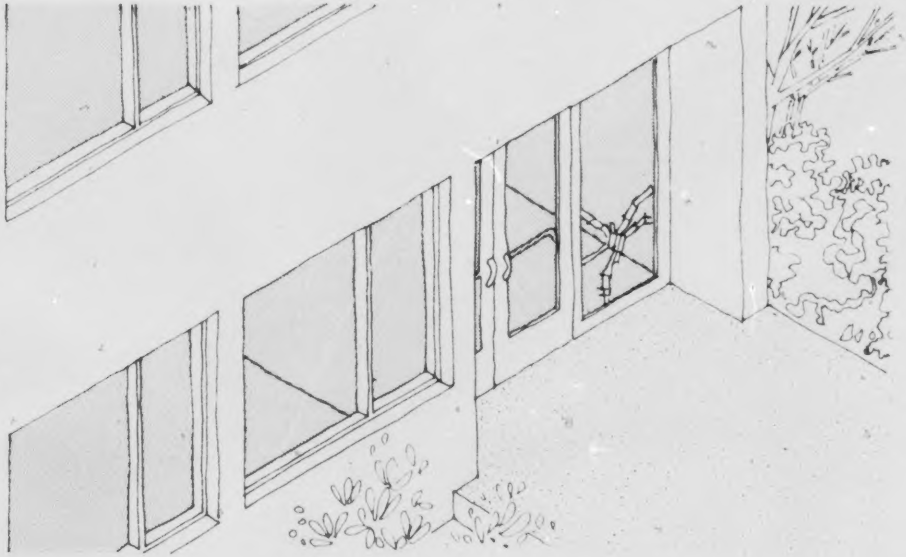


Design Issue

Windows: *Glass breakage in schools is the largest property damage problem and expense. While some glass breakage is malicious and related to theft, much glass breakage is not malicious vandalism. For example, a student sitting on a ledge may swing his legs, kicking and cracking vulnerably placed glass panels in an adjacent door. Or, during a fight, one student pushes another into a window, resulting in damage. While damage to the child is malicious, the damaged window is an unintentional consequence, non-malicious in character. Much of this damage could be avoided if those playing near glass had a different attitude; but as long as kids are kids, such dangerous play will take place, and fragile environments will be damaged.*

Possible Design Responses

1. *Window Location:* Identify and avoid windows which are vulnerably placed in formal or informal gathering and play areas.
2. *Window Size:* Specify small panes of glass so that one break can be inexpensively and easily repaired.
3. *Non-glass Panels:* Specify solid non-glass panels and avoid all glass up to three feet from the floor, as this area is most vulnerable to damage.
4. *Glass Substitutes:* Where acrylic or plexiglas is used instead of glass, avoid placing it in watering holes or hang-out areas within reach of people standing on the ground. Problems with these materials include: carving, burning, scratching, and fading. In addition, while a pane of plexiglass or acrylic may not break, it may be entirely knocked out of its frame.
5. *Glazing Material and Location:* Specify increasingly sturdy glass as windows are closer to ground. On the ground floor, specify thick tempered glass, possibly thick acrylic or plexiglass, and if necessary, screens or grills in non-visible areas. On floors two to four, specify thinner tempered, acrylic, or regular plate glass. On the fifth floor and above, specify plate glass. All these specifications vary by the nature of the interior use.
6. *Glazing Material and Location:* When interior areas are to be highly used, such as informal hang-out areas in hallways, then specify sturdier glazing, regardless of floor level.
7. *Window Thickness:* Use double-layer glass or extra thick tempered glass where plexiglass is inadvisable.
8. *Windowless Locations:* Avoid useless windows entirely in: student stores, administration storage offices, and industrial arts storage areas.
9. *Security Screens:* When all other possibilities have been tried and proved unsuccessful, install thin wire mesh security screens over ground floor windows.



CHAPTER 3

Interior Design Responses

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Design Issue

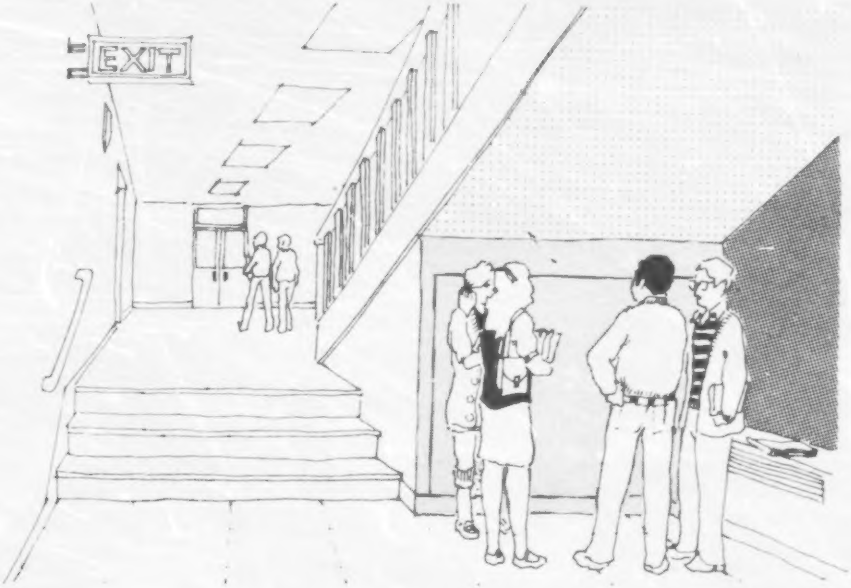
Hang-Out Areas: *Many areas inside schools provide places for groups of students to sit together to be seen, and to watch others go by. These hang-out areas are places where students meet eeach other informally. When school is not in session, students might meet at the corner drug store. Teachers know they will meet other teachers in the administrative office during the day. But during school, students have neither the right to go to the corner store nor the formal office to serve as a visible social gathering place.*

Not much malicious property damage takes place in hang-out areas such as the main entrance lobby, the gym bleachers, or near the main student locker area. Rather, these places tend to be underdesigned for the great amount of sitting, jumping, roughhousing, graffiti, and other action they get. One result is that hang-out areas become marked up and marred faster than other areas.

Systematic planning for predictable activity in such places can appreciably reduce property damage.

Possible Design Responses

1. *Location:* Identify hang-out areas throughout the school and prepare them for the heavy use they will receive. Hang-out areas can be identified by their location near highly used traffic or recreation areas, by the availability of places to sit or lean, and by the number of students there.
2. *Fixtures and Hardware:* For fixtures and hardware in hang-out areas which can be reached, specify those which cannot be easily unscrewed, snapped off, poked into, or broken.
3. *Wall Fixtures:* Plan all wall fixtures and adjustments — thermostats, fire alarms, light switches — far from convenient and comfortable hang-out areas, or out of reach if they must be located there.
4. *Fixtures and Hardware:* For all fixtures attached to walls and ceilings which might be hung from or climbed upon, specify reinforced attachments.
5. *Equipment and Fixtures:* Identify equipment and fixtures which will be used to sit on in such areas — radiators, window-sill, garbage cans. Specify specially sturdy equipment suitable for sitting. As this equipment is damaged, replace it with equipment which is still sturdier and which can be well attached to the wall or floor.
6. *Seating:* In hang-out areas, provide comfortable and durable seating far from any breakable windows and equipment.
7. *Trash Containers:* Provide convenient trash containers which are emptied regularly.
8. *Walls:* Plan for writing on some walls near hang-out sitting areas. Formal message boards in these highly visible places might help channel informal messages onto one wall.
9. *Agreement:* Make an agreement with students to formally acknowledge their right to use hang-out areas.



Design Issue

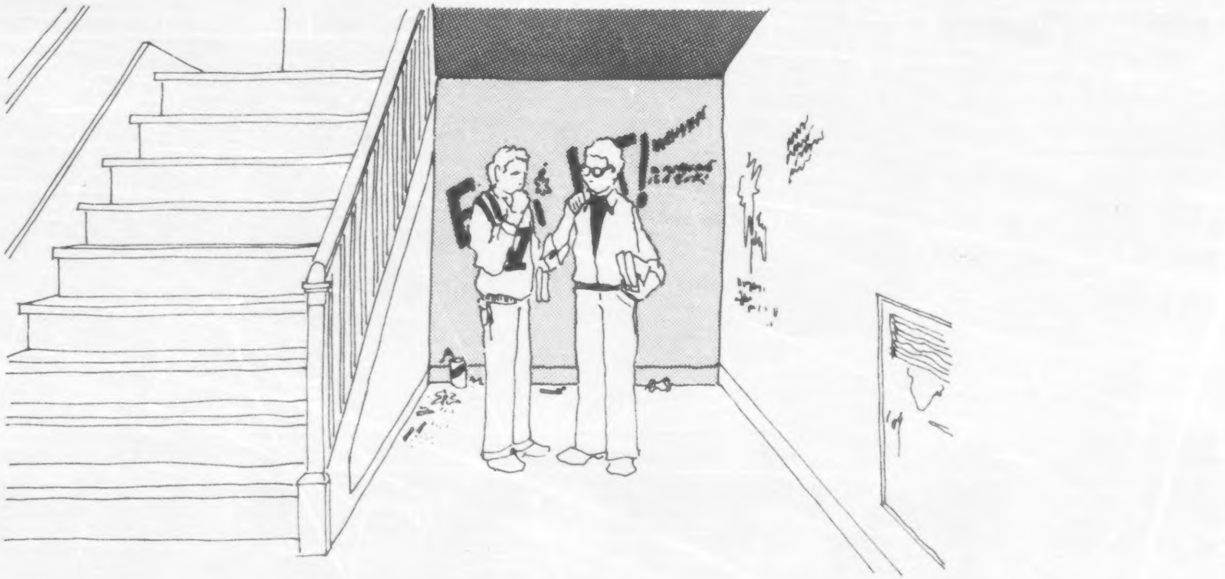
Watering Holes: *Few schools have authorized places where students can meet out of view of staff and faculty. However, most school building interiors provide partially out-of-the-way places which act as informal, unauthorized lounges for students more secluded than "hang-out" areas. Places used for informal gathering are usually located out of sight of office and classrooms, are usually among the least supervised places in the school, and are often considered trouble spots by custodians, teachers, and school administrators. For students, these lounges provide an important and necessary refuge from surveillance by those in positions of authority. The area may act as a place for uncensored discussion, as a smoking lounge, or as a place to show off to a small group of friends.*

Watering holes are established in out-of-the-way places large enough for groups of people: stairwells, ends of corridors, lavatories, back door entry lobbies.

Some watering holes become the territory or "turf" of a particular group, and are seen therefore as the group's clubhouse. Because clubhouses represent specific groups interests, they are often personalized by wall graffiti, in addition to receiving normal rough use.

Possible Design Responses

1. *Location:* Identify watering holes and plan specifically for the rough use they are sure to get. Do not "harden" these areas so that they are no longer comfortable for this purpose. If this is done, students will move to another area of the school, into a watering hole which has neither been hardened nor planned for.
2. *Walls:* Use epoxy paint or glazed tile on all surfaces which will be subject to graffiti so they can be easily washed.
3. *Wall Color and Texture:* On walls where graffiti predictably will occur, provide light blocked out surfaces for the graffiti. These should contrast sharply in color and texture with surrounding surfaces, and thus will attract and channel the graffiti.
4. *Fixtures and Hardware:* Specify that all fixtures and hardware like lamps and handrails be firmly attached. If the hardware is unnecessary, remove it altogether from the watering hole area.
5. *Glass:* Avoid glazing — especially below three feet from the floor — which will be easily damaged by being broken, burned, or scratched.
6. *Equipment:* Identify equipment which will most likely be used as a bench — radiator, window-sill, cabinet — and specify that it be reinforced to accept this use.
7. *Trash Containers:* Provide convenient trash containers which are emptied regularly and which do not make burning rubbish or papers attractive.
8. *Alternative Lounges:* Develop legitimate, i.e., authorized, lounge areas — non-visible from offices and classrooms and accessible to students without having to pass through offices and classrooms.
9. *Equipment:* Possibly provide legitimate ways for students to personalize watering holes, such as attaching unfinished wood planks to walls for carving initials; or large white painted panels for writing. These would have to be replaced regularly.



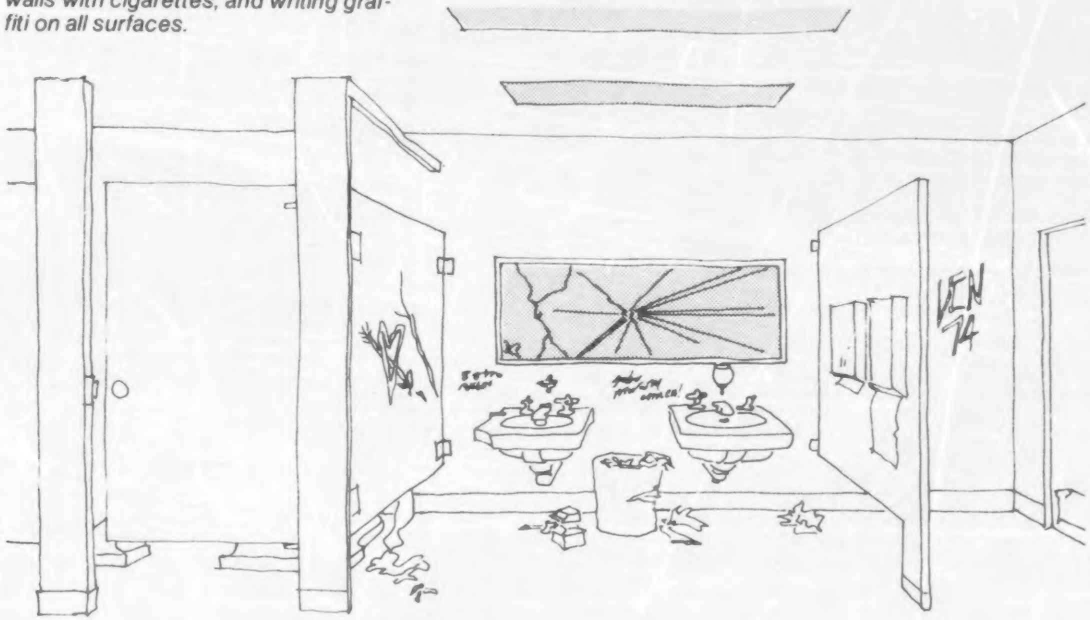
Design Issue

Lavatories: *Lavatories provide one of the few places in schools where students can find what they feel to be deserved privacy. Groups of students may use a particular lavatory as their "clubhouse" during school hours. This privacy is used not only for destructive activity. It also allows for personal chats and group discussions about common problems.*

When students hang around a place for non-destructive reasons, an attempt to have fun can lead to property damage. In lavatories, these include removing plumbing pipes, breaking porcelain fixtures and other accessories, dissembling partitions, burning paper, burning graffiti into ceilings and walls with cigarettes, and writing graffiti on all surfaces.

Possible Design Responses

1. *Pipes and Accessories:* Minimize exposed plumbing pipes and accessories.
2. *Fixtures:* Install bathroom fixtures which can be easily and inexpensively replaced if damaged.
3. *Fixtures:* Locate and specify airvents and waste paper baskets which will not attract use as ashtrays, yet will withstand such use if it occurs.
4. *Surfaces:* Specify walls and floors in lavatories with as durable material as possible all the way to the ceiling.
5. *Ceilings:* Specify solid ceilings in lavatories. If this is not possible, specify ceiling elements which can withstand poking. Avoid drop-in ceiling panels in lavatories.
6. *Screws:* Specify toilet partitions with tamperproof screws and hinges so that partitions cannot be dissembled with simple hand tools.
7. *Toilet Partitions:* Construct toilet partitions so that vertical elements are attached to structural members in floor and ceiling.
8. *Toilet Partitions:* Specify painted surfaces for interior walls of toilet partitions, since these can be expected to be written on. To reduce cumulative graffiti, these surfaces must be painted or washed at regular intervals. As partition surfaces are scratched or otherwise permanently marred, replace them with partitions which can be regularly painted or which are inexpensive to replace.
9. *Acceptance:* Develop an attitude of acceptance among custodial staff towards toilet stall graffiti. Otherwise, this relatively minor property damage can become a major source of confrontation between students and staff.
10. *Equipment:* Provide chalk boards or other erasable surfaces in the lavatory. Let students know they can write anything they want except obscenities and misspellings, and that it will only be erased by students. Make a formal agreement with students about this.
11. *Alternative Places:* Develop sufficient private social places elsewhere in the school building so the bathroom does not become the main one. These might be structured private lounges, or they might be dead-end school areas provided with places to sit.



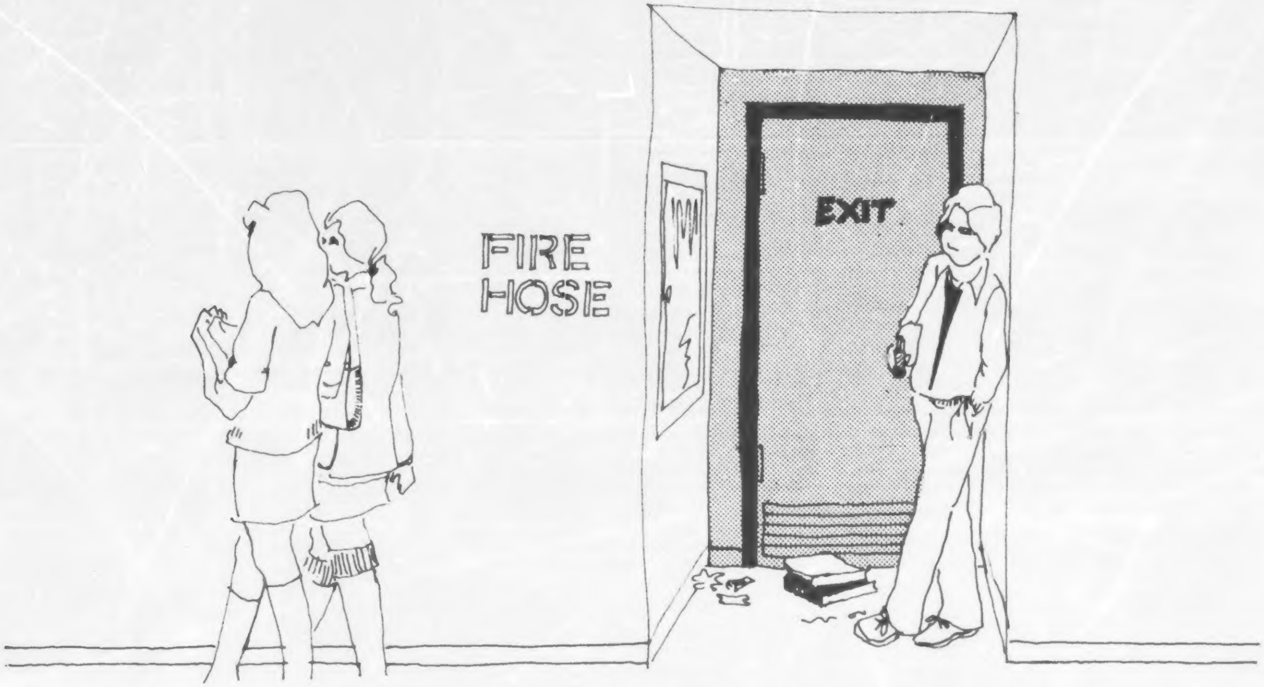
Design Issue

***Niches:** Interiors of school buildings provide many small gathering places large enough for one or two people. These places are created by indented exit doors, stairwells, fire hose attachments, and corners of lockers.*

Niches like these tend to be used more for destructive than social purposes.

Possible Design Responses

1. *Location:* Wherever possible, design away niches.
2. *Hardware and Glazing:* If niches must be left, specify no damageable hardware, glazing, and wall materials.
3. *Ceilings:* Ceilings in necessary niches must be solid.



Design Issue

Auditoriums: *Auditoriums in schools are often overused, used by unsupervised groups, and used in ways for which they were not originally intended. In planning auditoriums, it is important to accurately predict the amount and type of use fixtures and furnishings will get. During study halls, for example, students remain seated for relatively long periods of time. Seats which are comfortable enough for this purpose also may provide diversion for students who, out of boredom, pull loose threads from cushions. This eventually can add up to major cumulative damage.*

When informal activities take place such as a senior play rehearsal, students sit on the edge of the stage, on backs of seats, or on the steps up to the stage. In such cases, seating, equipment and material on the stage skirt are vulnerable.

When auditoriums are used for less supervised activities such as lunch periods or informal meetings, greater damage may occur to fixtures. Seats can be disassembled; graffiti may appear on chair backs and walls; initials may be carved in wood or on painted metal.

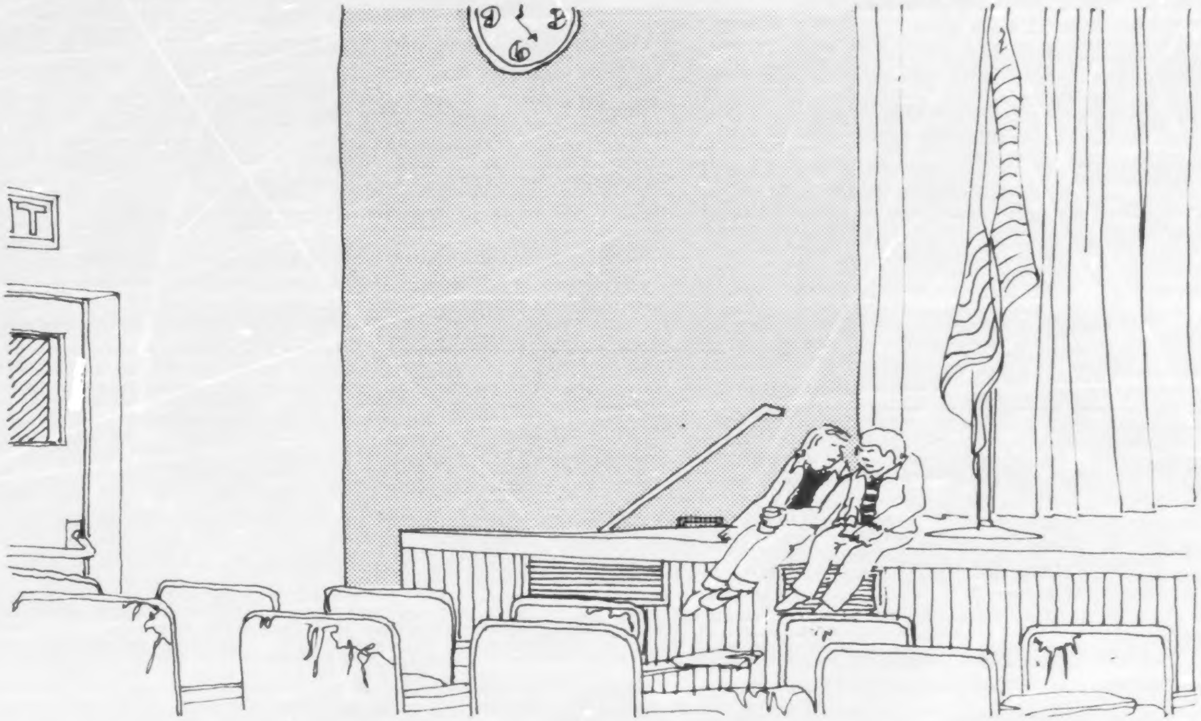
Auditoriums may also be empty and unsupervised for long periods of time. During such times, electrical, lighting, and sound equipment must be specially protected.

These considerations do not belittle the fact that it is essential to design properly for activities which take place during normal use.

Possible Design Responses

1. *Durability:* Openly assess uses to which auditoriums might be put during the life of the building. Realistically predict and plan for both standard and potentially special uses.
2. *Seating:* When uses include such things as formal assemblies, dramatic presentations, or graduations, specify comfortable seating which is easy to clean and does not offer materials to play with like string or buttons.
3. *Seating Screws:* Specify seating with sunken bolts or tamperproof screws to prevent disassembling with common hand tools.
4. *Wall Material:* Specify epoxy paint or tiles as high as people can reach in auditoriums.

   If tiles are used, they should be small so that replacement is both easy and inexpensive.
5. *Fixtures:* Locate lights, loud-speakers, and other wall fixtures so they are out of reach of kids standing on seats.
6. *Fixtures:* Around the stage area, specify heavy duty ventilation grilles, floor lights, and other fixtures so that normal but rough informal use will not damage them.
7. *Equipment Covers:* Specify heavy duty lockable grilles to cover all control boxes — stage lighting, sound, electrical, and so on.

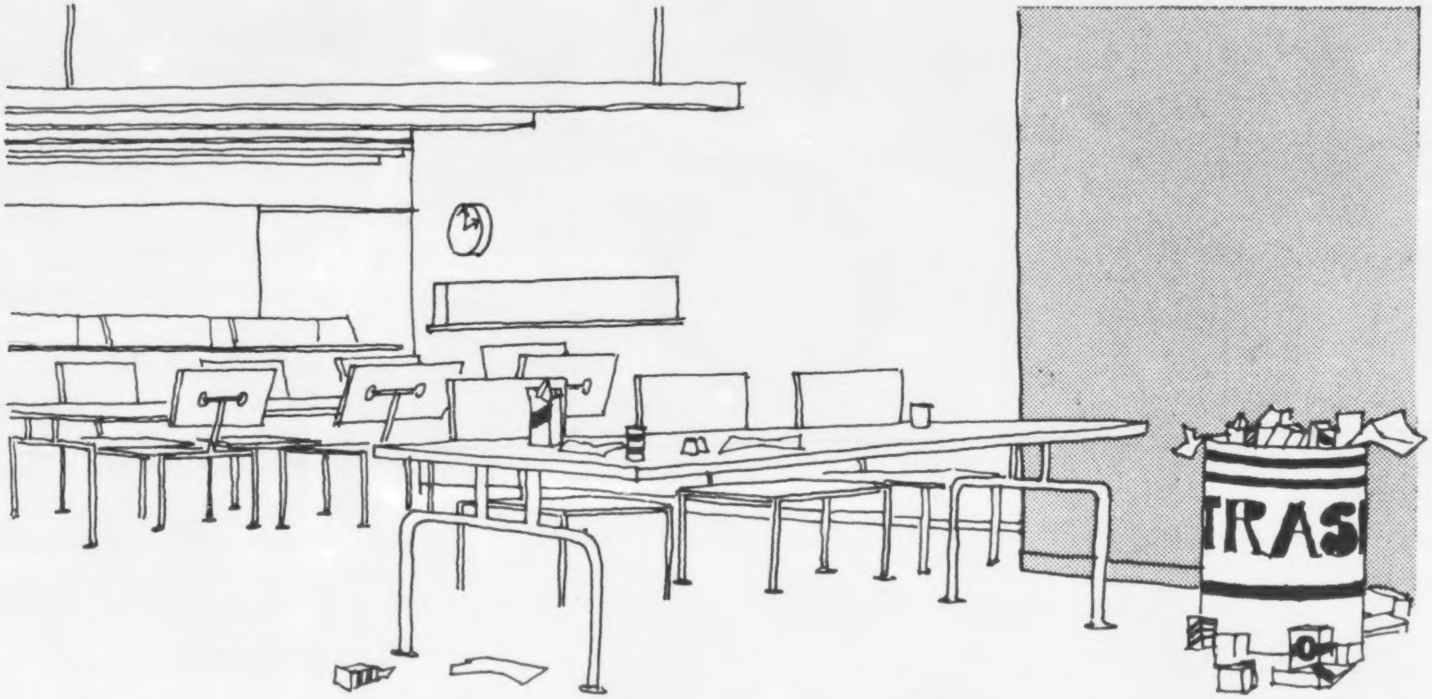


Design Issue

Cafeterias: *Cafeterias are like playgrounds in the freedom they offer students. Cafeterias tend to be noisy and generate a lot of trash. Many schools cope with these problems by assigning teachers to cafeteria supervisory duty. This may keep the room quieter and cleaner, but it requires an added burden on teachers.*

Possible Design Responses

1. *Trash Receptacles:* Place trash receptacles at the end of each row of tables and be sure there is a system to empty them before they overflow. This makes it easier for students to clean after themselves and gives the appearance that if students do their part in cleaning, so will the schools.
2. *Furniture:* Choose furniture for cafeterias which cannot be easily disassembled and which can withstand constant and hard use.

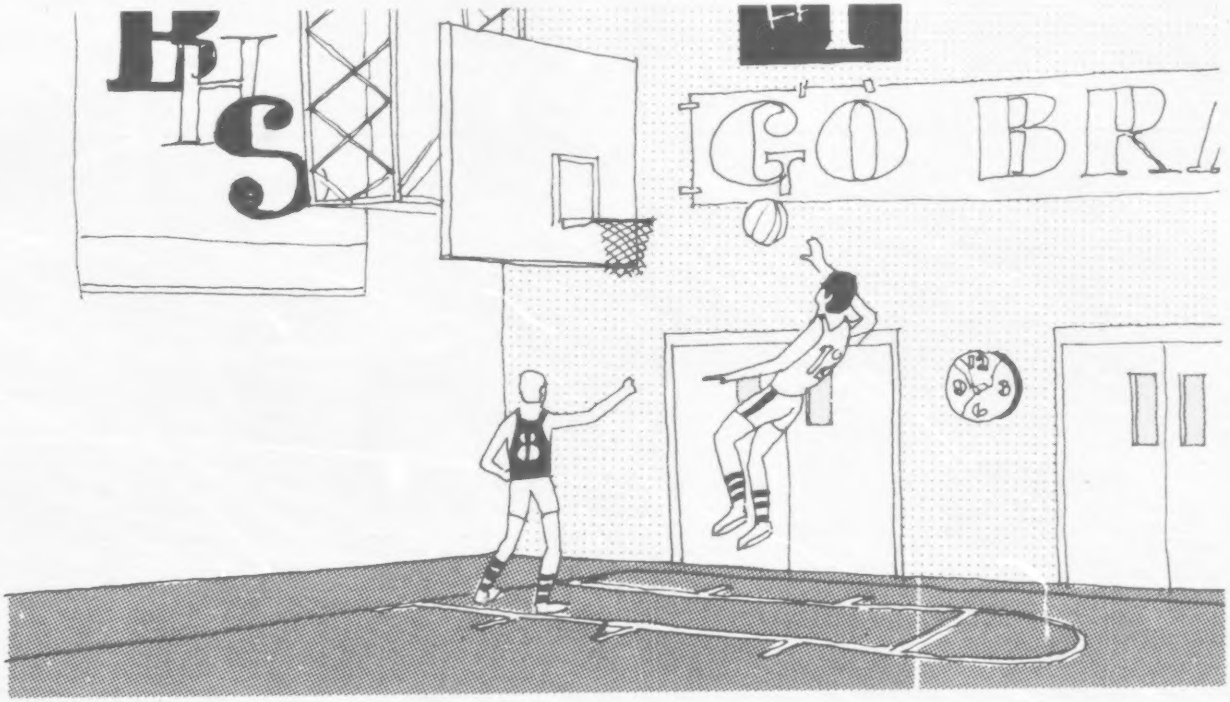


Design Issue

Gymnasiums: *Property damage in school gymnasiums often occurs because: first, wall fixtures are located in the way of flying objects like basketballs, bats, baseballs, and are within reach of spectators sitting in bleachers, serving as targets for playful mischief; second, heavy equipment provides opportunity for improvised rough play; third, floor surfaces are specified for single uses like basketball playing and require special cleaning methods. The varied uses they get and traditional all-purpose cleaning methods used cause damage to floors.*

Possible Design Responses

1. *Walls:* In the gymnasium, provide large uncluttered expanses of wall to be used for impromptu ball playing.
2. *Fixtures:* Locate all wall fixtures out of reach of spectators sitting on bleachers, people playing on the floor, and people climbing gymnastic equipment.
3. *Fixtures:* Locate fixtures like clocks and loudspeakers on side walls or in corners. Avoid placing them on end walls in back of basketball backboards where they may be accidentally hit by stray balls.
4. *Equipment Storage:* Locate equipment storage lockers so that they are visible to permanent staff offices.
5. *Rules:* Responsibility for use of play equipment must be clearly assigned, either to students using the gym or to a staff member.
6. *Gym Floor:* Gym floor surfaces should be multi-use, if possible, so that they stand up to being walked on, to have tables on them, and to other non-gym uses.
7. *Gym Floor:* Gym floor materials requiring special care should be specified only if a training program in maintenance techniques is conducted for custodians. It is essential that such a program be ongoing to reach new members of the staff hired later in the life of the school.



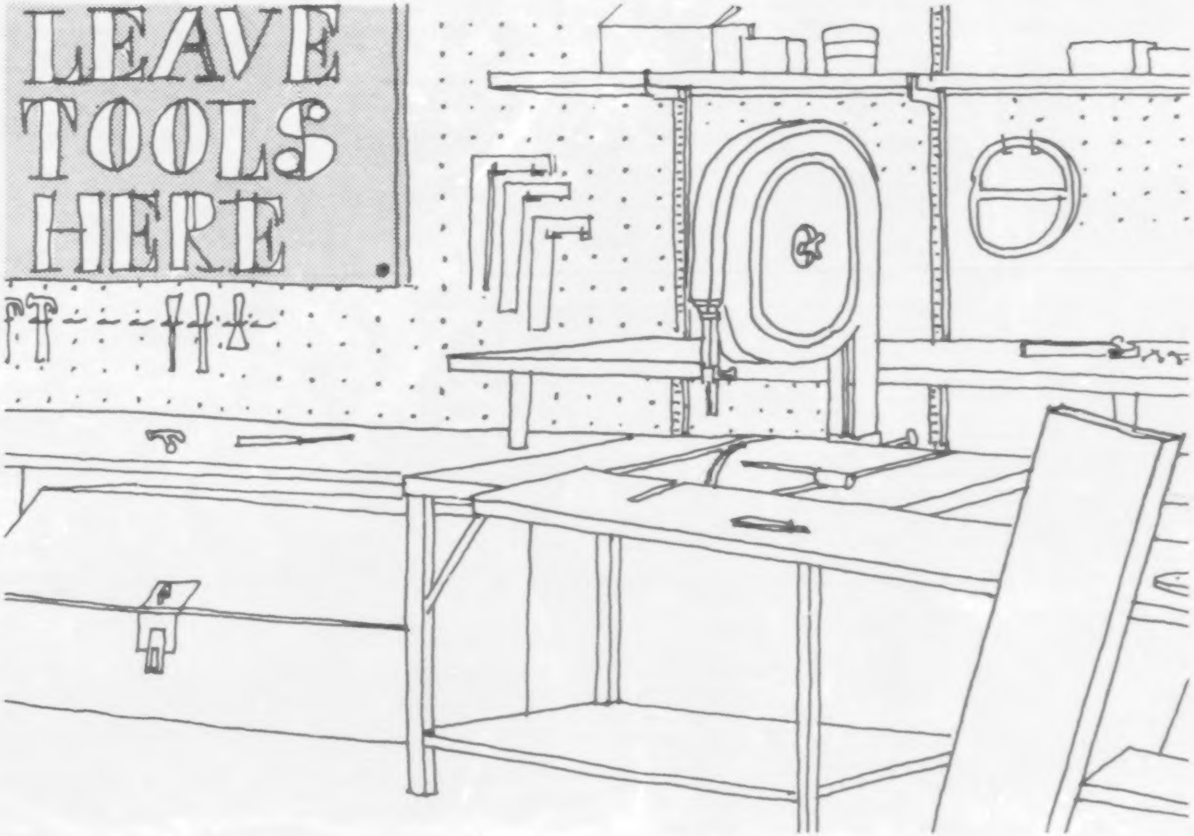
Design Issue

Shop Areas: *Shop classrooms have many potential targets for both malicious and non-malicious property damage. Students may jam machine tools because they do not know how to use it properly or because they do not want to work during that class. Students may also steal tools to damage other areas of the school, or just to be mischievous.*

Shop area damage must be dealt with through social means as well as through design.

Possible Design Responses

1. *Tool Storage:* Plan a central storage area large enough to keep all hand tools.
2. *Rules:* Students must demonstrate their ability to use each major piece of machine equipment properly, before being given unrestricted access.



Design Issue

Places and Types: *Teachers have their names on doors or walls and principals speak over loud speakers, but students often have no legitimate ways to establish their own identity in school. Some students write graffiti for this purpose.*

Those who do choose areas that are highly visible to persons in the school. It may be a wall facing a locker room, near an entrance, or in any other area where there is a large volume of traffic. In a sense, these walls become "advertising" space for students.

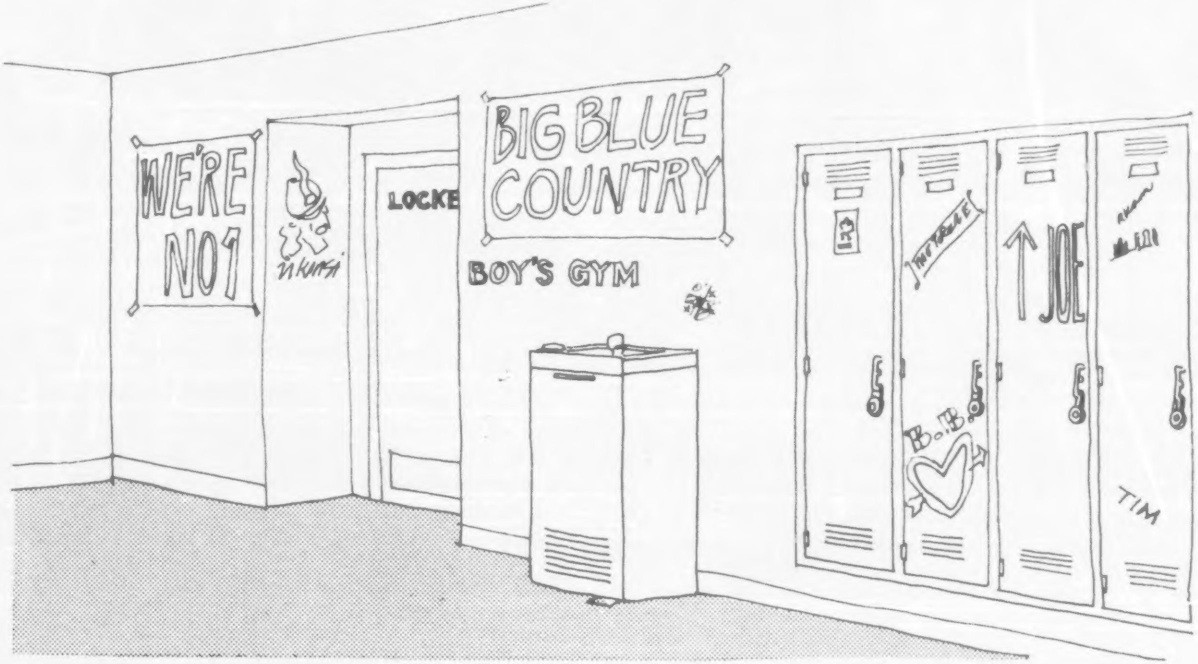
Popularly, graffiti is seen as anti-social, malicious behavior. This is only sometimes the case. While some interior wall writing is malicious, other is self-expressive or decorative. Self-expressive graffiti takes such forms as love declarations, nick-names, and group identification symbols. Decorative graffiti often is placed on personal property or lockers and takes forms ranging from flowers to cut-outs.

Administrators, teachers, and custodians often have formal places for such expression. When students take over a wall for these purposes, they are called "vandals."

In dealing with graffiti, it is important to distinguish between malicious wall-writing and self-expressive and decorative writing.

Possible Design Responses

1. *Location:* Systematically identify those areas of the school which have large volumes of traffic and which therefore have surfaces likely to receive graffiti. In such areas, be more accepting of graffiti.
2. *Walls:* Specify wall materials so that malicious graffiti can be removed rapidly, while other forms of non-malicious wall-writing can be left until a regular bi-monthly cleanup.
3. *Surface Color and Texture:* Channel graffiti onto certain surfaces by painting them light colors. Lighter areas tend to attract graffiti more than adjacent dark surfaces, especially if the light surfaces have some regular pattern on lines or boxes which people can write on. In this way, graffiti can be planned for and left up as long as desired.
4. *Graffiti Walls:* Another way to channel graffiti, which works only where the problem is not overwhelming, is to formally designate one wall as a graffiti wall. This wall may just be a light-painted wall with a sign on it, or it might be a specially erected piece of plywood, a chalk board, or a large sheet of butcher paper. The potential problem with this approach is that it takes away some of the challenge inherent in informal graffiti.
5. *Surface Material:* In areas prone to graffiti, specify glazed surfaces from floor to ceiling and epoxy paint. Wash such surfaces regularly, but only every month or two. Otherwise, the writing/washing cycle becomes a form of competition.

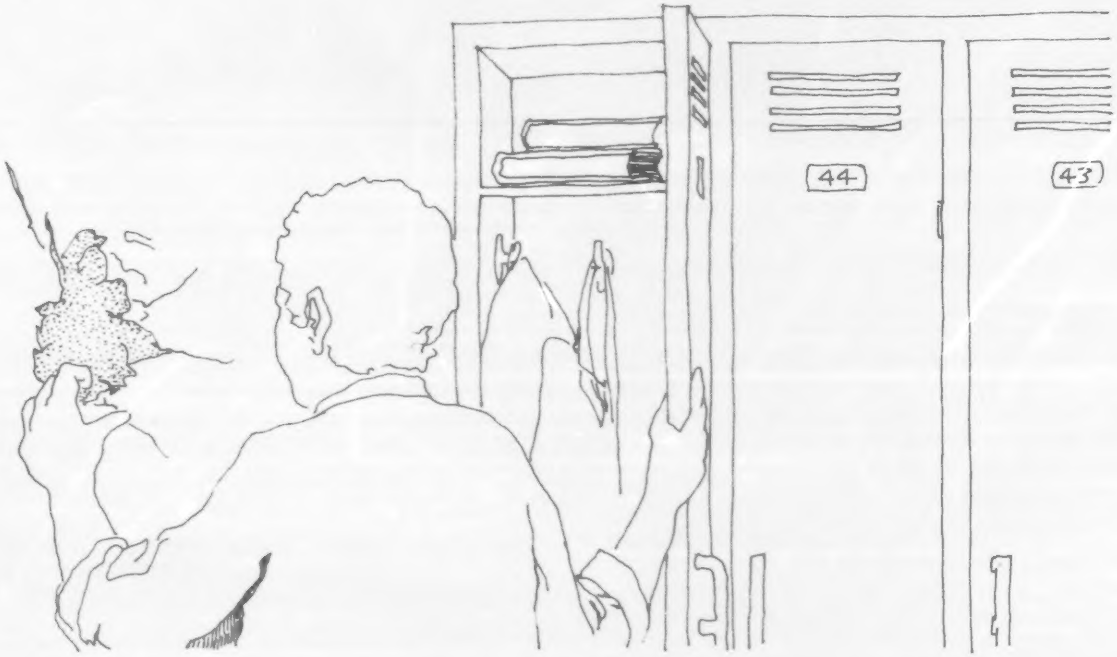


Design Issue

Walls: *Walls are highly prone to the "epidemic effect" of vandalism. If one scratch is left for a long time, or one pane of glass is broken, there is high probability that further damage will occur around the same spot. Conversely, quickly repaired damage is less likely to recur.*

Possible Design Responses

1. *Wall Panel Size:* Specify small wall panels instead of large expanses of wall space. Keep replacement panels in stock and replace damaged panels as soon as damage occurs.
2. *Surface Materials:* In potential problem areas, specify inexpensively and easily replaced or repaired surface materials.
3. *Paint Color:* Paint walls with colors similar to the substance of the wall material itself. Contrasting colors reveal scratches more easily.
4. *Surface Materials:* Specify harder surfaces in damage-prone areas. Avoid soft textures there.
5. *Surfaces:* Use epoxy paint or glazed tile whenever possible on walls in highly traveled or used areas.
6. *Paint:* Use quick drying paint so that custodians can keep quick-drying touch-up paint in stock.

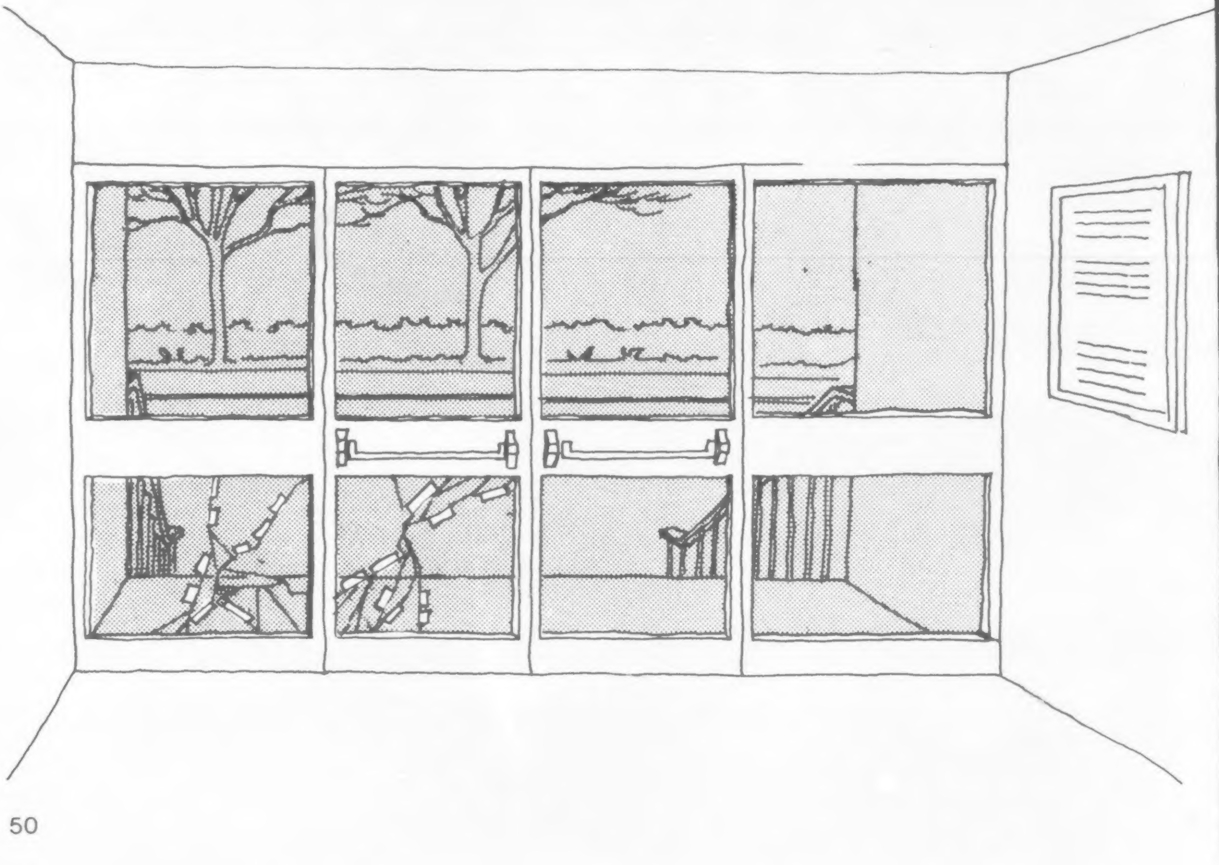


Design Issue

Glazing: *Glass on interior walls and doors are prone to both misdirected as well as casual damage. This is true especially for glass near the floor which can be easily kicked and glass in hang-out areas and watering holes, where it serves as a diversion. Exterior windows in heavily used areas are also particularly damage-prone.*

Possible Design Responses

1. *Solid Panels:* Specify solid panels in the lower half of doors and in walls along passageways. Avoid glass that can be easily kicked. This is especially true in areas where students tend to congregate.
2. *Glass Substitutes:* While acrylics and plastics may sometimes be suitable substitutes for glass, they are easily marred by scratching and burning. Thick glass or metal and enamel panels may be more appropriate for heavily used areas.



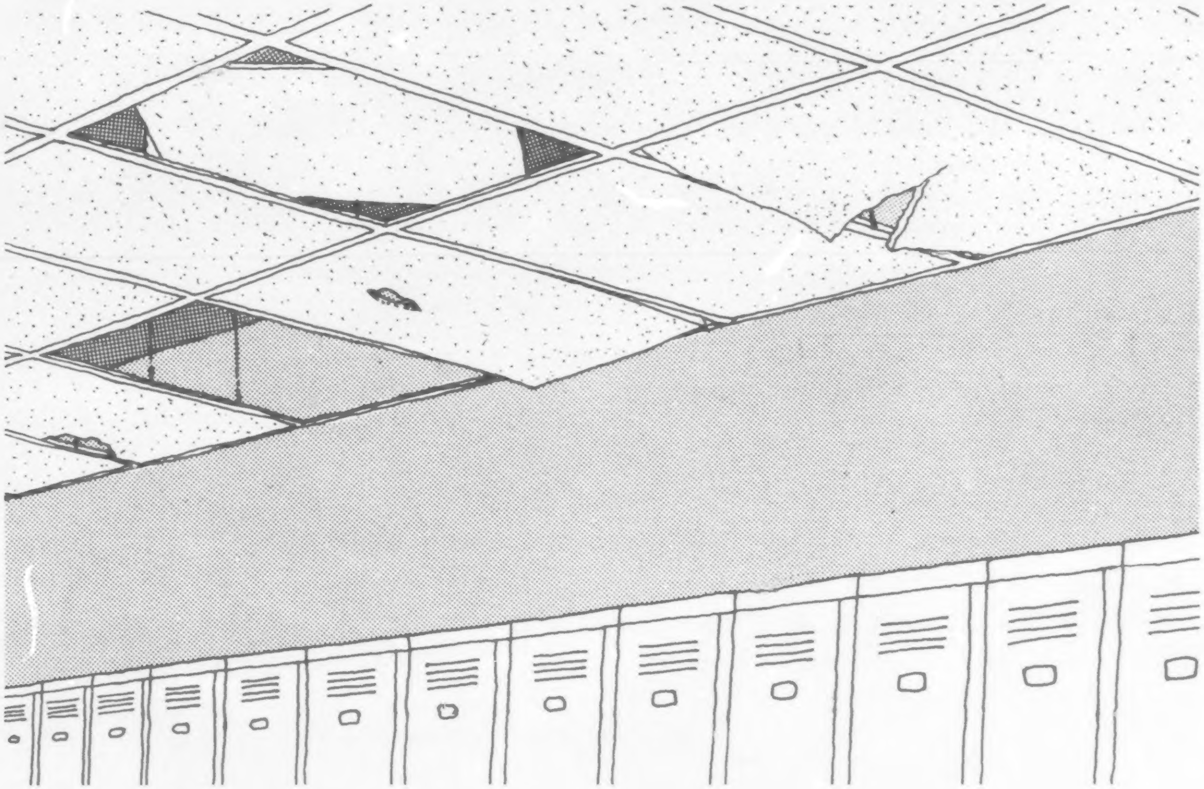
Design Issue

Ceilings: *Kids often find ceilings a challenge to jump up and touch and to hit with rulers or sticks. This is especially true for drop-in ceilings which offer the interest in finding out what is above the tile, and the chance of having a trophy to take home — a full tile. This is particularly true in hallways, informally used social areas, lavatories, and other heavily used places.*

Drop-in tiled ceilings are prone to the "epidemic effect" of vandalism. If one tile is left pushed in for a long time, there is a high probability that further damage will occur around the same spot. On the other hand, quickly repaired damage is less likely to recur.

Possible Design Responses

1. *Ceilings:* Specify hard surfaced ceilings in lavatories, watering holes, and hang-out areas. Avoid large expanses of drop-in ceiling tiles in such areas.
2. *Tiles:* When ceiling tiles are imperative in areas where students can reach the ceiling by jumping or using sticks, specify firmly attached, heavy ceiling tiles that give way only slightly under pressure.
3. *Surface Finish:* Resist damage from marking by using an easily cleaned surface material, like epoxy paint or glazed tile, even on the ceilings.
4. *Paint Color:* When painting, use a color that does not contrast with the sub-surface color. This is so that if ceiling paint is marred, the sub-surface color will not noticeably show through.
5. *Paint:* Use quick-drying paint so that custodians can keep touch-up paint in stock.



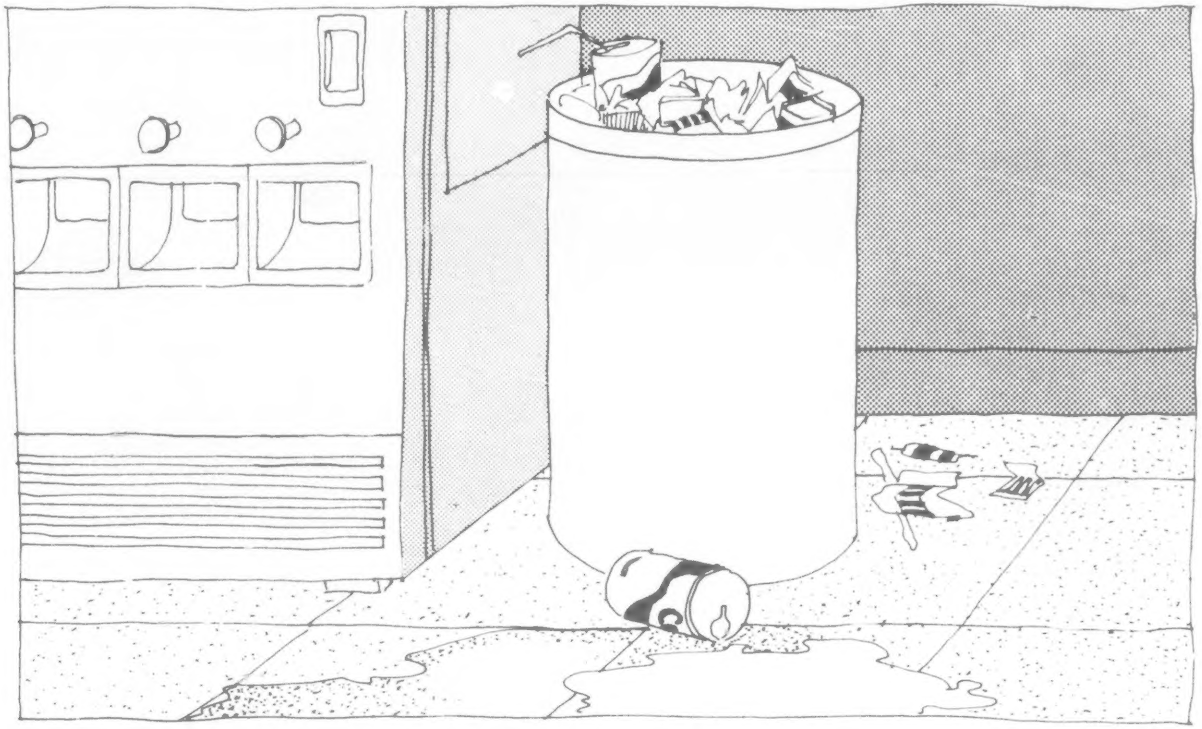
Design Issue

Floors: *Floors, like other surfaces, are prone to "epidemic vandalism." One loose board, a missing tile, or a rip in the rug readily leads to further damage. It is important to find materials which resist damage well, and which, when damaged, do not provide the culprit with a trophy or prize (e.g., a piece of tile.) Materials used must be easily replaced with minimal visible effect.*

A second problem with floor surfaces is that one material is often specified for large areas of a school and thus for many different uses. As a result, some floor surfaces are abused by activities for which they were not intended to withstand.

Possible Design Responses

1. *Carpet Size:* Where soft floor surfaces are necessary or desired, install squares or other units of carpeting which, though destroyed when removed, are easily and neatly replaced.
2. *Material:* Specify floors such that damage can be repaired quickly, so that "epidemic vandalism" does not set in.
3. *Surface Appropriateness:* Provide hard surfaces for areas where there will be hammering or painting. Provide soft surfaces where there will be reading, discussion, or music listening.
4. *Surface Appropriateness:* There are no carpets in arts and crafts areas, home economics areas, snack areas, and near sinks and easels in classrooms.
5. *Noise Barrier:* If carpets are desired to reduce noise in work areas, place carpets or acoustical tile on walls instead of on floors.

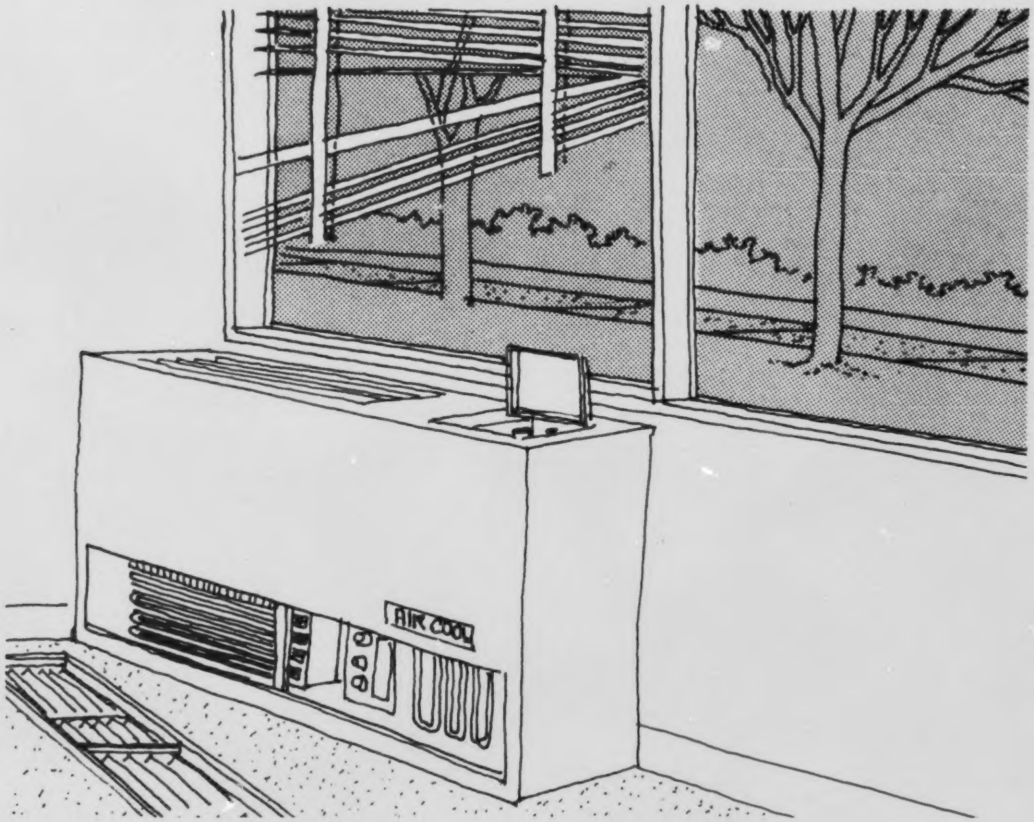


Design Issue

Fixtures Accessible to Play: *Students sit on anything which can be sat upon and climb on anything climbable. Students respond to fixtures and hardware which are challenging and intriguing. Systematically identifying and then strengthening, protecting, removing, or replacing such equipment can decrease property damage.*

Possible Design Responses

1. *Strength:* Specify specially sturdy performance for all equipment and fixtures which protrude from the surface of school buildings. Treat them as vulnerable items which will be climbed upon.
2. *Location:* In play and gathering areas, avoid hardware and fixtures which can be climbed upon and played with.
3. *Assembly:* Specify tamper-proof screws on all equipment.
4. *Lights:* Place light fixtures out of reach.
5. *Recessed Lights:* Recess light fixtures.
6. *Thermostats:* Place thermostats out of reach.
7. *Recessed Thermostats:* Recess thermostats.
8. *Challenging Fixtures:* In places where gathering and play is dangerous, avoid hardware which attracts students, e.g. things to hang on, things to chin themselves on.
9. *Air Conditioners:* Place air conditioners out of view in an inaccessible place on the roof.
10. *Trophy Equipment:* Avoid equipment and fixtures which reward students if hit, touched, or damaged. In other words, avoid equipment which makes a loud sound when hit or which remains in one piece when damaged.

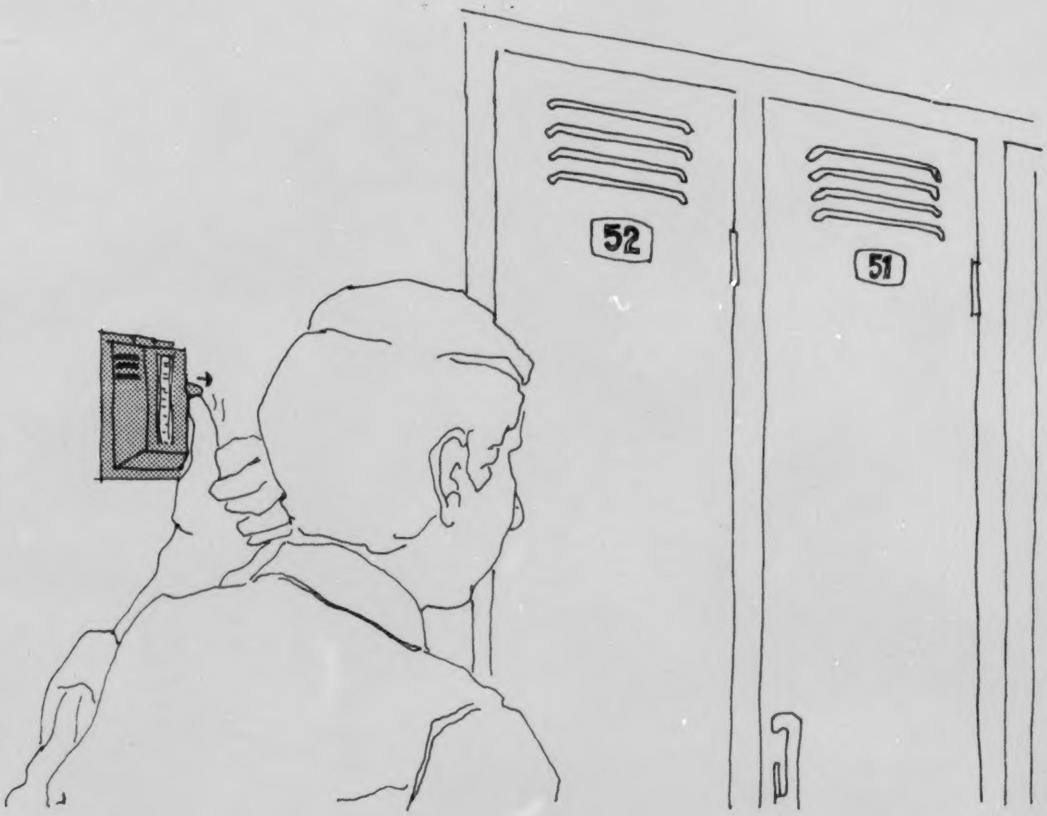


Design Issue

Thermostats: *Thermostats, like much other hardware, protrude from wall surfaces and become easy targets for mischief. Typically, they are located at a height that makes them easy to reach.*

Possible Design Responses

1. *Location:* Move thermostats high on wall and set them a few degrees higher than normal. In this way, the school will remain at the same temperature and the thermostats will be out of reach.
2. *Recesses:* Recess thermostats into wall. Cover the opening with a grill flush with the wall. The grill must allow for the free passage of air around the thermostat. Adjust thermostat so the school will remain at the same temperature as with the former setting.



Design Issue

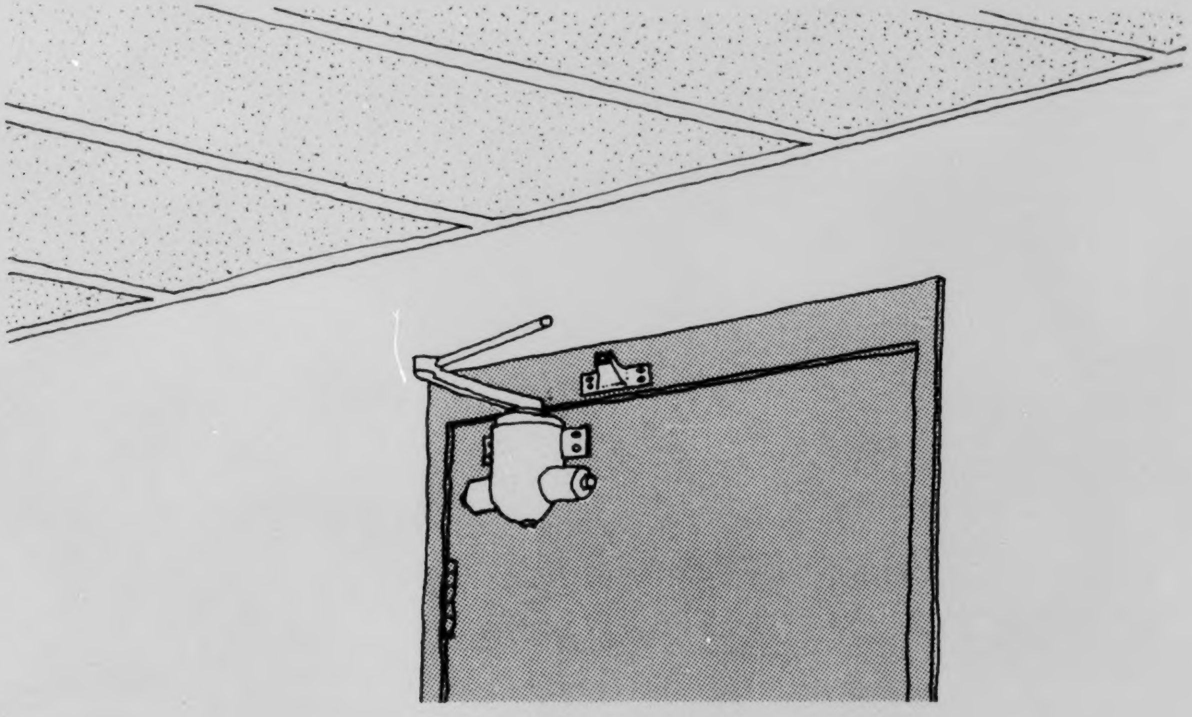
Door Closures and Door Knobs: *While doors generally are problems for school custodians, closures and knobs are special damage problems. Often they are not used for their mechanical purpose. People hang heavy objects on them, lean on them, and use them as a foothold to climb somewhere.*

Door knobs are also used as outlets for nervous behavior; continued turning, leaning, and fidgeting.

Finally, door locks and handles are the first target of thieves who might dissemble them in order to enter a room.

Possible Design Responses

1. *Durability:* Specify door knobs and door closures which can withstand especially rough types of use.
2. *Disassembly:* Choose door closures which cannot be disassembled with ordinary hand tools.
3. *Reparability:* If built-in door hardware is used, be certain that it is easy to repair if damaged. Otherwise, repair costs can be greater than potential costs of damage to exposed hardware.



Design Issue

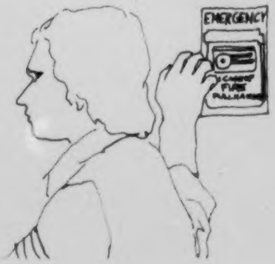
Alarms: *Alarm systems serve to warn against fire and to discourage and sometimes catch those seeking unauthorized access to a school building. Alarms have been successful in decreasing incidence of fire, of breaking and entering, and of theft. They have been less successful in preventing the occurrence of non-malicious property damage.*

Three kinds of alarms are prevalent in schools: audio alarms which pick up loud sounds; contact alarms which register the breaking of an electrical circuit; and sonar alarms which register movement within the building. The action of these alarms is of two types: either registering at an outside agency, e.g., police or fire department, while remaining silent within the school; or setting off a loud sound within the school, possibly also registering at an outside agency.

Criteria for choosing one or another system depends on many factors, among which is whether school administrators are interested more in catching intruders or in discouraging and scaring them away.

A common problem of alarm systems is the false alarm. Audio alarms may be triggered by passing planes or loud refrigeration systems. Contact alarms may be triggered by absent-minded superintendents on a late trip to the office. Sonar alarms may be disturbed by wind currents or by a stray piece of paper. Fire alarms are particularly prone to false alarms triggered by passing students.

No matter what system is chosen, it is important to place them selectively in the school. A blanketing of all school areas with alarms is wasteful and can cause more problems than they are worth. Questions of priority placement are therefore crucial.



Possible Design Responses

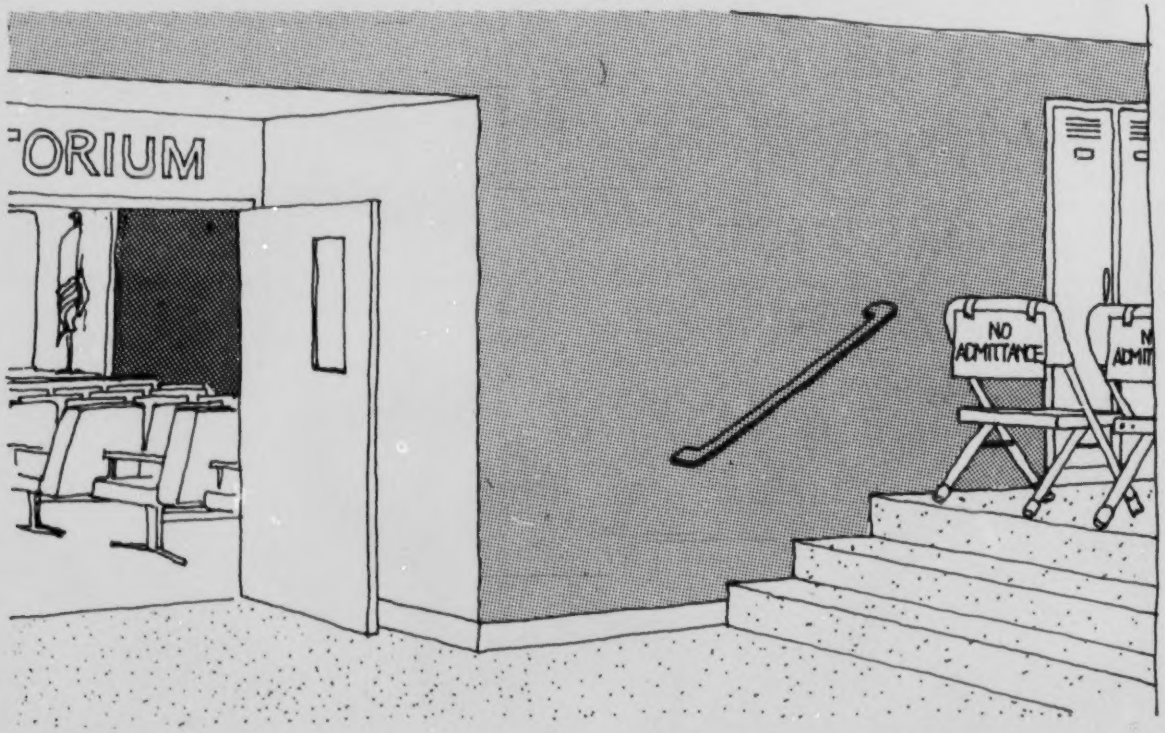
1. *Location Priorities:* High priority for installing theft alarm systems are: (a) administrative offices and record areas, (b) cafeteria and pantry, (c) teachers' lounge, (d) audio-visual equipment, data processing equipment, typewriters, P.A. system, instructional material resource center, and auto mechanic/industrial arts center, (e) library, (f) band-room, (g) storage areas, (h) student store, (i) portable classrooms.
2. *Fire Alarm Locations:* To minimize opportunity for false fire alarms, fire alarm boxes should, if regulations permit, be placed where they can be seen, for instance in classrooms and in offices.
3. *Fire Alarm Types:* Specify fire alarms which require several small steps to be set off: take hammer, break glass, pull lever. Avoid one step fast fire alarms which are easy and fun to set off.
4. *Fire Alarm Type:* Specify alarm boxes with a double bell system which rings first only in the box, and then several seconds later in the fire station. Do this where regulations permit. If the alarm is false, a supervisor can turn off the alarm with a special key before the alarm is spread or registered with the fire department.

Design Issue

Joint Community-School-Use Entries: *Programs in some schools encourage community members to use the gymnasium or swimming pool on weekends, to hold adult education classes at night, and to conduct community meetings in the auditorium. While such multiple use can result in cooperation, it can also cause conflicts. One way conflicts arise is when property damage occurs in community schools and each group blames the other. Careful planning and renovation can better accommodate multiple use and lessen conflict over property damage.*

Possible Design Responses

1. *Internal Gates:* Install built-in flexible internal gates to be able to selectively zone off specific corridors or parts of school while other parts, e.g., the auditorium or a set of classrooms, are open for use. Flimsy gates which are only symbolic barriers are not useful because they challenge young people to get by them.
2. *Separate Entries:* Provide separate exterior entries to the different school zones: community-use and school-use.
3. *Office Location:* Locate offices of supervisory personnel near multiple use entries so that these adults may serve as informal surveyors of people coming in and out of the school. This is especially useful around recreational facilities.
4. *People Locks:* People gathering at entrances serve as a "human lock" for the rest of the school. Therefore, provide places for informal meeting and activity near entrances and exits on the inside of school, e.g., benches or soft-drink machine.



CHAPTER 4

Administrative Responses to Property Damage and Vandalism

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Three Types of Programs

Administrative programs to reduce property damage and vandalism are as important as design and renovation of buildings. In fact, while physical design can respond well to issues of unintended damage, misnamed vandalism, and hidden cost maintenance damage, physical design can respond to malicious vandalism mainly with alarms, bars on windows, and prison-like buildings. Administrative programs, on the other hand, respond well to malicious damage by (1) finding ways to control behavior around the school, (2) finding ways to increase parents' and students' feelings of responsibility for the school, and (3) finding ways to get different members of the school community to talk to one another.

1. Behavior Programs

Programs which maintain orderly behavior around school by supervision or punishment we are calling behavior programs. There are two types of behavior programs: (1) those organized to prevent damaging behavior by keeping "eyes-on-the-school" 24 hours a day; and (2) those aimed at setting an example by apprehending and punishing students and their parents for acts of vandalism which have already occurred.

An example of an "eyes-on-the-school" program is in Chattanooga, Tennessee, where custodians are scheduled on several shifts to keep the school building occupied 24 hours a day. Punishment programs include ones like Los Angeles' well publicized program to collect restitution from apprehended vandals.

2. Motivation Programs

Programs to reduce property damage by educating students, parents, teachers, and others to be involved with their school and to be more aware of the problems, we are calling motivation programs. There are at least two types of motivation programs: (1) those which involve different school groups in projects from which they benefit directly and which motivate them to feel the school is partly theirs; and (2) those which tey to make these groups more conscious of and knowledgeable about property damage.

An example of an involvement program is Louisville, Kentucky, where students in their School Beautification Program are given money to buy equipment and furnishings to make their school buildings more attractive. San Diego, California's "Handbook to Develop School Pride" is an example of an awareness type motivation program.

3. Dialogue Programs

Dialogue programs are those which bring together custodial staff, teachers, students, administrators, parents, neighbors, and others to discuss their different attitudes towards what to do about property damage. There are two kinds of dialogue programs: (1) those which are created as catalysts to make on-going behavior and motivation programs work better; and (2) those which are developed purely for the sake of opening continuing communication channels between interest groups.

An example of a dialogue program developed from a behavior program is in El Paso, Texas, where senior custodians live in apartments or houses on school grounds. While this program formally just keeps buildings policed most of the time, informally successful live-in custodians are parents of children in the school, have an office next to the principal's, organize student activities, and help teachers get in on the weekend. These custodians are actually the center of informal dialogue programs, which make the "eyes-on-the-school" program even more effective.

Examples of pure dialogue programs can be drawn from several Massachusetts schools where head custodians regularly take part in faculty meetings. Unfortunately, small scale pure dialogue programs are too few in number and not old enough to provide useful feedback. Nonetheless, the more comprehensive "community school" approach instituted in parts of Massachusetts, in Michigan, California, and in other states, can be seen as a type of large-scale dialogue program. Where successful, these programs involve a broad cross-section of the school and community in on-going dialogue about day-to-day issues.

One off-shoot of successful applications of the "community school" concept is lowered property damage and vandalism. Again, because the approach is so comprehensive, it is difficult to show what specific part might be usefully abstracted to cut property damage. Cause and effect in this case is unclear. However, isolated instances of this approach do allow us to see pure dialogue programs at work.

Summary of the Three Types of Administrative Programs

1. Behavior
   a. "Eyes-on-the-school" programs
   b. Punishment programs

2. Motivation
   a. Involvement programs
   b. Awareness programs

3. Dialogue
   a. Catalyst programs
   b. Pure dialogue programs

Two Goals of Schools

Educators have long contended that in American schools since the American Revolution there has always been tension between traditional schooling which emphasizes obedience to existing rules, the basic curriculum, and order in schools, and progressive schooling which emphasizes the growth of the child, his or her personal development, and the child's adjustment to a set of everchanging rules.

This tension is the tension between what we have been calling "behavior" and "motivation" goals:

1. BEHAVIOR GOALS: Training new citizens; conveying to these new citizens society's expectations of what is acceptable behavior; and transmitting to them the rules and regulations of the community;
2. MOTIVATION GOALS: Motivating individuals who are developing; presenting to them the conceptual world or older generations; and showing them how to use reason and individual judgment.

Schools are required to achieve both behavior goals and motivation goals, although each school usually emphasizes one more than the other in its day-to-day operations. Among the many operational decisions administrators make is what type of programs to institute to reduce property damage: administrators who emphasize behavior goals often choose behavior programs, while those who emphasize motivation goals tend to choose motivation programs. This is where conflict arises. No matter what the major goal orientation of a school is, the staff will include positions with both orientations: either towards behavior, e.g., custodians, superintendents of maintenance, guards, monitors, or towards motivation, e.g., counselors, teachers, and superintendents of curriculum.

Preliminary research indicates that people in jobs which include more behavior than motivation tasks often find it difficult to work with programs which concentrate on changing attitudes but which may not immediately change destructive behavior. Similarly, people in school positions made up more of motivation than behavior tasks understand and endorse motivation programs directed at adjusting motives, but find it difficult to accept behavior programs aimed primarily at property damage consequences through strong discipline.

Since the best method for reducing property damage in a given school probably includes both types of programs, it is important for all those involved in schooling to communicate their perspectives and concerns to each other, so that each understands the other's point of view. To carry out programs effectively for decreasing school property damage, it is essential that this division of goals and of staff be softened.

Dialogue programs serve this purpose.

Motivation and behavior objectives are at times in conflict. Programs for reducing property damage by attacking causes are at times incompatible with those that attack consequences. But, the fact that these programs are incompatible at a particular moment does not mean that, over time, they might not be reconciled. By having schools' different interest groups discuss and exchange their views, a comprehensive and flexible program which includes both motivation and behavior goals, dealing with both cause and consequence, can be developed to reduce property damage.

	Staff	
	Personnel oriented toward "motivation"	Personnel oriented toward "behavior"
Goals		
Motivation	Effective motivation programs	Need for dialogue programs
Behavior	Need for dialogue programs	Effective behavior programs

SPECIFIC PROGRAMS

Questions and Answers About Specific Administrative Programs to Reduce Property Damage and Vandalism

The following administrative programs to reduce property damage represent only a few of many such programs around the country. We have chosen the ones which best exemplify a type of program, so that each school district might use the questions and answers provided to develop an innovative program particularly suited to its own needs.

Each program is introduced by a short description and analysis. Then there follows for each program a series of questions and answers elaborating practical issues which will interest administrators who want to consider instituting such a program.

- School watchers are residents who live near a school and parents of school children who keep watch over the school by walking through and driving by school grounds on weekdays after school and evenings and on weekends. If they see any problems they call other school watchers, the principal, and the police. Cooperation of neighbors and parents with the school through a school watchers program is an inexpensive and effective way to keep eyes on the school. Such programs work best if they are organized, yet based on informal involvement rather than formal routine; if they are accompanied by comprehensive involvement with the school on the part of the parents and neighbors; and if the program offers some form of prestige to participants. One major limitation of the school watchers program is that it can respond to external property damage and to damage done when school is not in session, but not to internal and unintended damage.

1. **How Formal Should the Schedule of School Visits Be?**

Maintaining a formal schedule can be difficult, especially when there are conflicts with family activities. More practical and equally effective is an informal schedule of surveillance: simply suggesting, for instance, that school-watcher parents drive a block out of the way to survey the school on the way back from a shopping trip or on the way home from work. An unpredictable "spot check" can be more of a deterrent than a familiar routine patrol.

2. **Do School Watchers Eliminate the Need for Guards?**

School watchers are limited to the building's exterior, and thus are not as thorough as guards authorized to enter the building. Where breaking and entering is a major problem, guards may be needed; but where minor damage is the problem, school watchers may be enough.

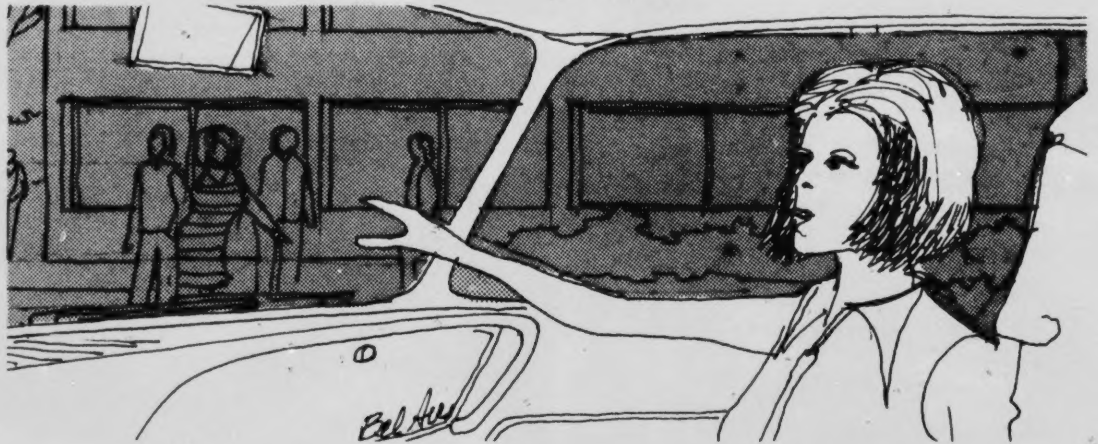
3. **How Can Interest in the Program Be Sustained?**

A newsletter can be distributed to parents informing them about program successes; and public news media reports reward participants with attention to their efforts while keeping the community aware of their activities.

4. **Where Can a School Watchers Program Be Most Successfully Established?**

It is easiest to set up a school watchers program where there are already a number of ongoing school programs involving parents and community; and when "school watchers" themselves are actively involved in a variety of school affairs. The sense of responsibility school watchers feel is greatest among those already expressing concern for the school in such activities as PTA and parent-student projects.

In a Houston school where this program has successfully been established, there are two programs involving parents: "block homes" where neighborhood parents have signs showing that their home is a place students may stop in case of emergencies; and parents running food concessions at school functions such as athletic games and fairs, and using the proceeds to buy equipment for the school.



- Custodians can be present in and keep an eye on school buildings 24 hours a day if they are scheduled on several shifts. This measure is relatively inexpensive because it covers some major security costs with minor maintenance expenses. School districts have found this system cuts down on some nighttime vandalism. Several problems arise with 24-hour custodian shifts, but proper planning can overcome them: Having three separate maintenance staffs can be inefficient; nighttime personnel has a higher turnover rate if not properly chosen; it is more difficult to supervise night shifts than day shifts. Proper choice of personnel and assignment of tasks can begin to overcome these problems. Clearly, the major criteria for instituting such a program is that the building be large enough to need the requisite number of custodians.

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1. **How Much Extra Does It Cost to Have Custodians 24 Hours a Day?**

   In one Tennessee School District, costs increased only 10%. Cost increase is kept down by the fact that 24-hour custodians are used only in schools where there were previously more than two custodians; so shifts merely had to be rearranged. In smaller schools where additional custodians must be hired, costs are greater. Nevertheless, if security costs are thereby avoided, the program still may be worth it.

2. **Are There Any Problems With Unions When Custodians Work at Night?**

   This varies according to the particular locale. Where there are specific unions, union policies must be considered and negotiated before beginning a 24-hour plan.

3. **Are There Any Problems With Supervision When Custodians Work at Night?**

   Sometimes there are problems of low productivity by custodians working at night when there is no consistent supervision. In order to overcome this problem, principals in the Tennessee school district are given a copy of the work schedule given to each shift of custodians. This helps to determine what has and has not been done when night custodians are checked in the morning by the head custodian. It is reported that these schools get much better cleaning and care, along with 24-hour security, making up for the increased cost of hiring another custodian in schools formerly having fewer than three custodians.

4. **How Does the Custodian Deal With What He Suspects to be Either a Vandal or Someone Breaking and Entering?**

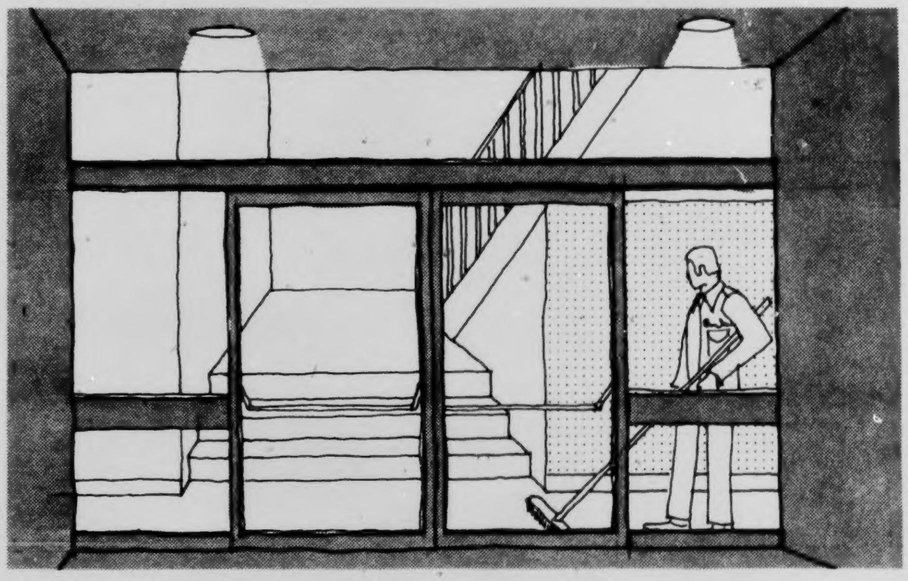
   He calls the police. Custodians must be asked not to try to apprehend anyone who breaks and enters a building. If they see anything out of the ordinary, like a parked car in the school vicinity, or someone lurking on the grounds, they must be asked to notify the police immediately.

5. **Why Use Custodians on a 24-Hour Shift Instead of Hiring Guards?**

   Where property damage problems or breaking and entering are sporadic and not created by adult criminals, permanent guards may not be necessary, while roving guards may not be sufficient. 24-hour custodians provide enough of a deterrent for minor-criminal activities and are constantly keeping an eye on the school. Since their presence is enough to do the security job, the fact that they are cleaning up at the same time is an efficient use of school funds.

6. **What Other Devices are Needed to Back Up 24-Hour Custodial Schedules?**

   In larger buildings, where a custodian cannot hear what is going on in one part while he is cleaning another area, noisy burglar alarms may be helpful. These must be placed carefully, so that pranksters do not use them to run custodians around the school.



- Live-in custodian programs have head custodians and their families living in a house or apartment built on school grounds. One benefit of the program is that it serves as an early warning system to prevent costly breakdown to equipment such as heating, ventilating, and air conditioning; kitchen freezers, and so on. In addition some property damage problems are averted or caught before too much damage occurs such as from fires and broken windows. The "human alarm" potential of a live-in custodian is greatest when the custodian becomes part of the school community and feels the school in part belongs to him. The live-in custodian program only works if the custodian feels it is a positive benefit to live in the community where the school is located, and feels he is getting a good deal as far as housing is concerned.

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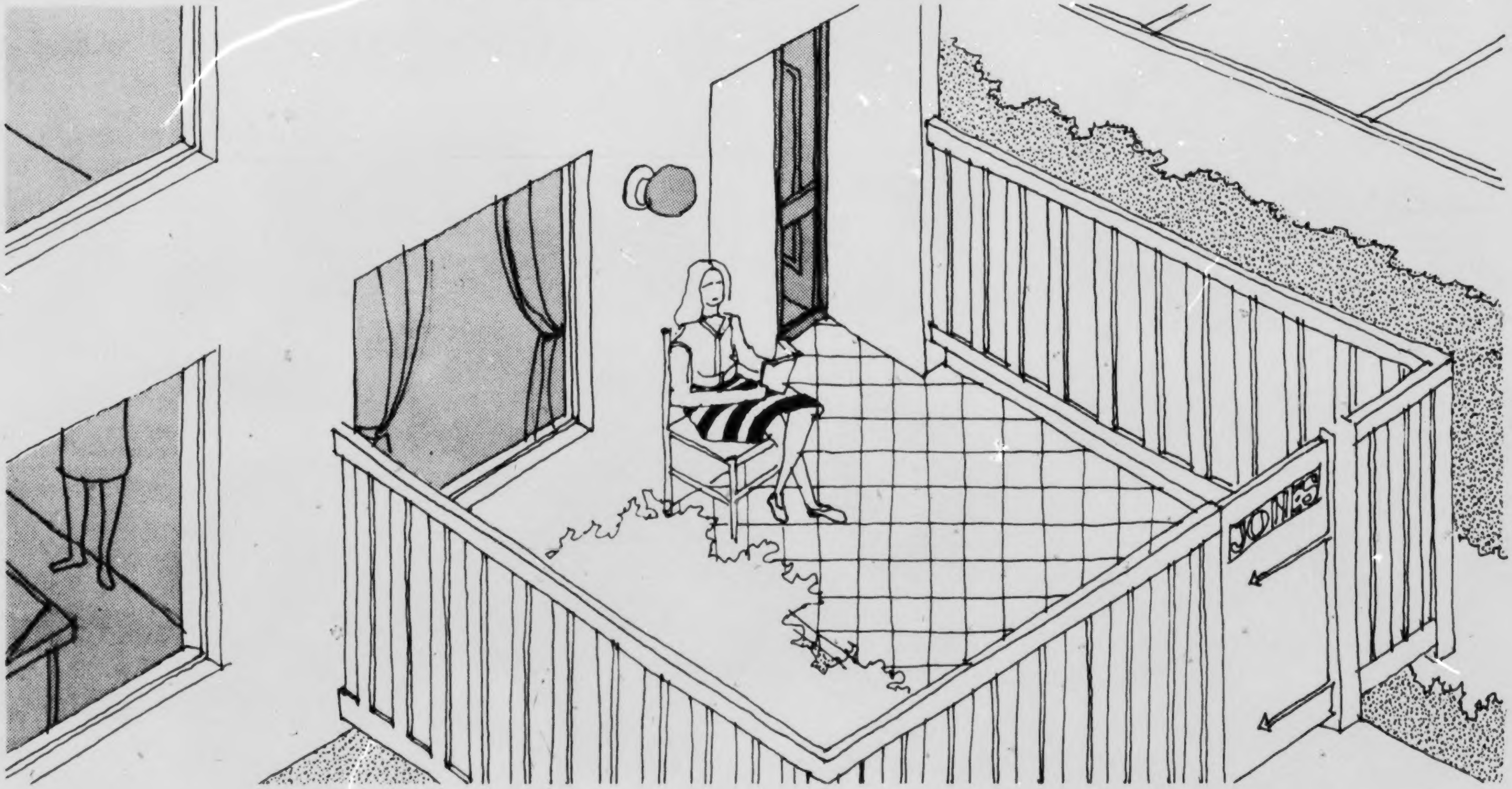
1. What Does the Live-In Custodian Do That Is Different from a Regular 9-5 Custodian?

In total, the live-in custodian works a full 35-hour or a 40-hour week. Every weekday evening he makes a 1 hour round of the school and its mechanical equipment — a total of 2-1/2 hours a week. On weekends he makes two rounds each day — once in the morning and once in the evening, making



another two hours. The rest of his hours are scheduled normally throughout the week. When there is an extra-curricular activity at the school at night, the custodian gets paid time-and-a-half. In addition, he sometimes gets called on to let the principal or a teacher into the school at odd hours, if they forget important papers. This is a minor drawback to the program which cannot be avoided.

2. What Type of Person Should a Live-In Head Custodian Be?

Live-in custodians must be interested in and get along well with young people. It is important to look for persons with experience with children, such as having been a coach or scoutmaster. He must like to deal with people because he must be able to get along with teachers, administration, kids, and people in the neighborhood. Finally, since it is best if he becomes part of the school community, it is often good if the live-in custodian has a family with children. This allows him to get to know neighborhood people through taking part in PTA, Scouts, as well as through general public relations.

3. What Costs are Involved in Having a Live-In Custodian?

Since a live-in custodian still works a normal week, salary costs do not differ from that of usual custodial service. The cost of the residence is a factor because it includes utilities, maintenance of dwelling, and extension of school phone. The cost of housing varies slightly with the type of housing selected: whether it is possible to adapt existing structures to this purpose or whether it is necessary to construct a complete new dwelling. Clearly, all these costs are less in warmer climates and in schools where an apartment is built-in during initial construction.

4. Who Builds Homes on Existing School Grounds?

In older schools, small new homes can be built on the grounds, possibly with assistance from vocational classes. Materials can be provided by the central office while classes in electrical work, building trades, masonry, and plumbing provide labor. In El Paso, where much low-wage labor is available anyway nearby, the unions encourage such arrangements. A building there costs about $8,500.00 and takes a school year to complete, given the good Texas weather.

5. When Does the Custodian First Have Contact With the Dwelling In Which He Will Live?

In order to encourage a feeling of ownership in new schools or new houses, the custodian and his wife can fruitfully be brought into both the design and construction process as early as possible.

6. What Should the Designer Keep in Mind When Planning a Dwelling Unit Inside the School?

The apartment within the school building or the house on the school grounds must look like a home. It must be visually distinguishable from the school, and offer the resident custodian and his family a sense of "home." The dwelling should not be considered a live-in office. There must be adequate privacy, and minimum noise from the school. In other words, the apartment ought not be next to boiler room or noisy play or gathering places. There should be a view from the living room which serves to associate the dwelling with the neighborhood — a view away from the actual school building. A parking space for the custodian adjacent and separate from the regular school parking lot is helpful to create a feeling of "separateness" from the school and to protect the car from students hanging out there. Because it is important that the custodian and his family feel part of the community, it is desirable that the dwelling's appearance conform somewhat to neighboring homes, if possible.

- In mobile home programs, one or two mobile home sites are prepared on the grounds of each school, depending on the size of the school building. The site is offered rent-free to trailer-owners who wish to live there in exchange for their agreement to informally watch the school. Sewer, water, and electricity connections are included in the preparation of the site.

  One California community reports this program has proved 95% effective. The cost of preparing the site was recovered after a period of only three years, and the monthly cost for electricity is less than $15.00. Mobile home programs are better suited to some communities than to others. They will work better in more rural or suburban towns with a tradition of mobile homes, than in the center of large urban areas. Nevertheless, some variation of the program might be well adapted to new types of school communities.

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1. **In What Level of School Has This Program Been Successful?**

   It has been proved successful at all levels. But a community beginning such a program might well start off first at an elementary school then work up to higher level schools after some successes.

2. **What is Involved in Preparing the Site?**

   It is important that the sites be competitive with or better than commercial mobile home parks in the area. In addition to installing sewer, water, and electricity connection, it is good to provide gravel or blacktop for patios and automobile parking. Residents can be asked to pay for their own gas, telephone, and garbage service. A telephone extension from the school is essential for emergencies. Fences may be installed around the mobile home site where the school district or the mobile home occupant feels the need. Construction costs for a site can vary from about $2,500 to $3,000 depending on whether a fence is necessary, and on how costly utility connections are.

3. **What is the Best Type of Family to Occupy the Mobile Home?**

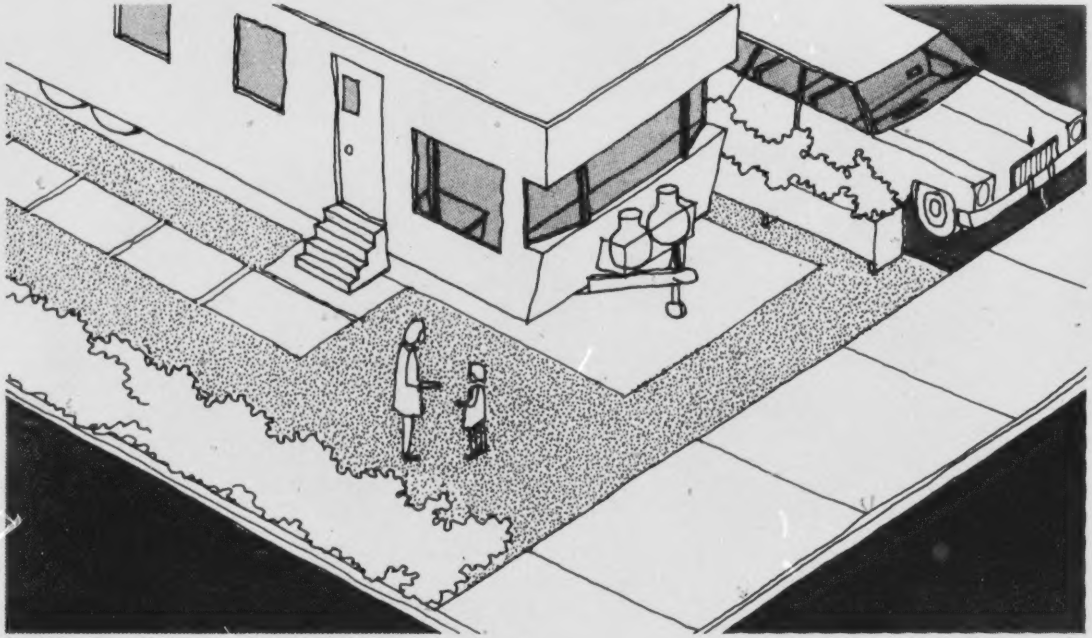
   There seem to be no set rules regarding the selection of families, except that there be no alcoholics or drug addicts. Some administrators feel that larger families or families with teenage children are best because they provide the highest level of visible activity. Retired people, singles, or couples without children might be away from home a lot; and unless they agreed to always have someone stay in their mobile home while they were away, they do not usually make very good mobile home school watchers. But experience has shown that these generalizations cannot always be applied. Schools setting up such a program are best off accepting applications from residents based on their probability of providing visible activity, and the probability that they will feel at ease talking to adults and children on school property.

6. **Where Should the Trailers be Located?**

   They should be located as close as possible to the "action" spots without interfering with the school's normal activities. Proper landscaping and siting are necessary to help the mobile home site fit in near school properties.

7. **Is It Legal?**

   Regulations vary by state, county, city, or town, and should be investigated before setting up such a program.



- School security officers are private guards hired directly by school officials or supplied by private security agencies. Generally schools hire their own guards, seeming to prefer them to guards from an agency.

The most important thing for a school administration and school committee to do when they decide to hire school security officers, is to hire two types of officers: one nighttime guard to be responsible for after-school "adult-type" crimes; and another daytime guard to deal with student problems which are as much educational as they are criminal.

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1. **Why Is One Security Force Not Appropriate for All Shifts?**

The night police force deals with illegal activities such as stealing, breaking and entering, and miscellaneous vandalism. During the school day, members of the school security force serve in human relations and counseling roles as well as looking after the welfare of students and teachers, and their possessive property.

2. **Who Selects Security Officers?**

Both school personnel and security officials must set up criteria and share responsibility for evaluating applicants.

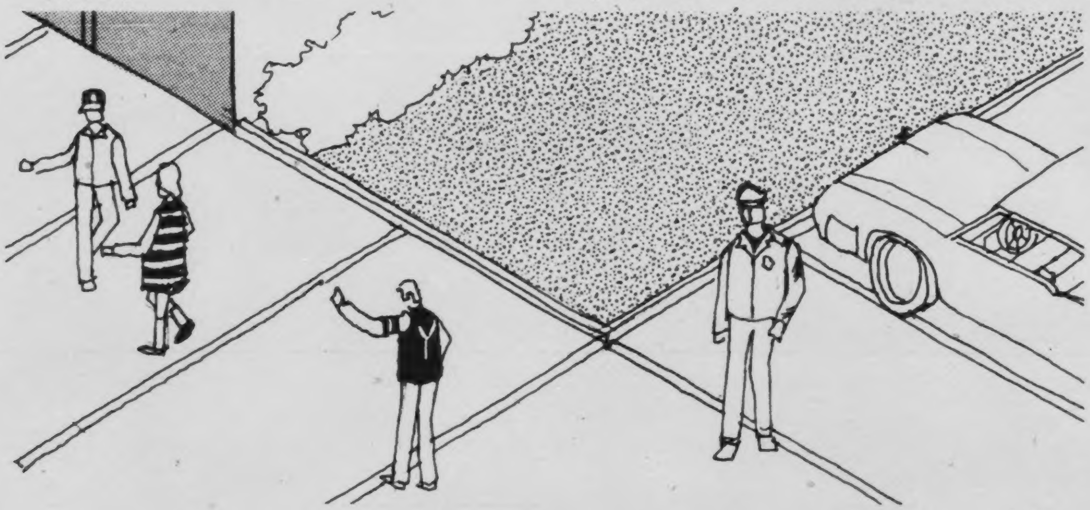
3. **What are the Best Kind of People to Hire?**

Night time guards: The traditional police professional or guard is best.

Day time guards: Officers successful in working at the school during the day in the multiple roles of property guard, protector, peacemaker, and emergency aide are persons with experience in educational situations and school problems who are able to establish good rapport with kids. In Houston, a city with a large security force, one of the most successful day-time security officers is an ex-waiter who has had lots of experience with people.

4. **What Special Training do Officers Receive After Hiring?**

Night and day officers must receive different training. Nightshift guards are trained in police work; dayshift security officers receive in-service human relations training. At regular intervals day-time guards should meet with school personnel to discuss specific situations experienced during the day.



5. **What if a Mistake is Made in Assigning An Officer to Day or Night Shift?**

If an officer originally assigned day-time duty proves unsuited to the special needs of the school day and more suited to the night-time guarding, he should be reassigned and vice versa. It is useful to have a 2-3 month probation period during which the appropriateness of shift-assignments can be determined and adjustments made if necessary.

6. **What is a Day-Time and a Night-Time Shift?**

Day-time guards normally work from before schools begin until schools let out, and also during school functions in the evenings or on weekends: in other words, they work whenever there are large gatherings of people. Night shifts begin after school and continue as late as necessary. Night-time guards work holidays and weekends as well, but are not assigned any duty for school activities in evenings.

7. **When Might the Use of Dogs be Desirable?**

In some cities night-time guards keep dogs with them — more as a deterring image than as an aid to catching vandals. Generally, the costs and potential community problems with dogs dissuade schools from using them.

8. **How are Day-Time Officers Made Part of the Educational Process?**

Students' attitudes toward security officers is important. Cooperation and personal rapport between guards and students is possible if guards are hired and trained correctly and if they are presented along with other school personnel as part of the school administration.

- Restitution programs are a set of administrative and legal procedures whereby school administrations try to get money from identified vandals for damage they incur. This means developing a procedure for identifying and prosecuting, and for enforcing the restitution claim. An important part of restitution programs is a mechanism for publicizing positive results of these efforts, so that the school department can maintain an image of forcefulness towards vandals.

Carrying out restitution programs exhaustively often entails more expense than is compensated by monetary restitution. On the other hand, occasional thorough investigation and prosecution which is well publicized, may reduce damage enough to compensate for the program's cost.

1. **How is a Restitution Program Conducted?**

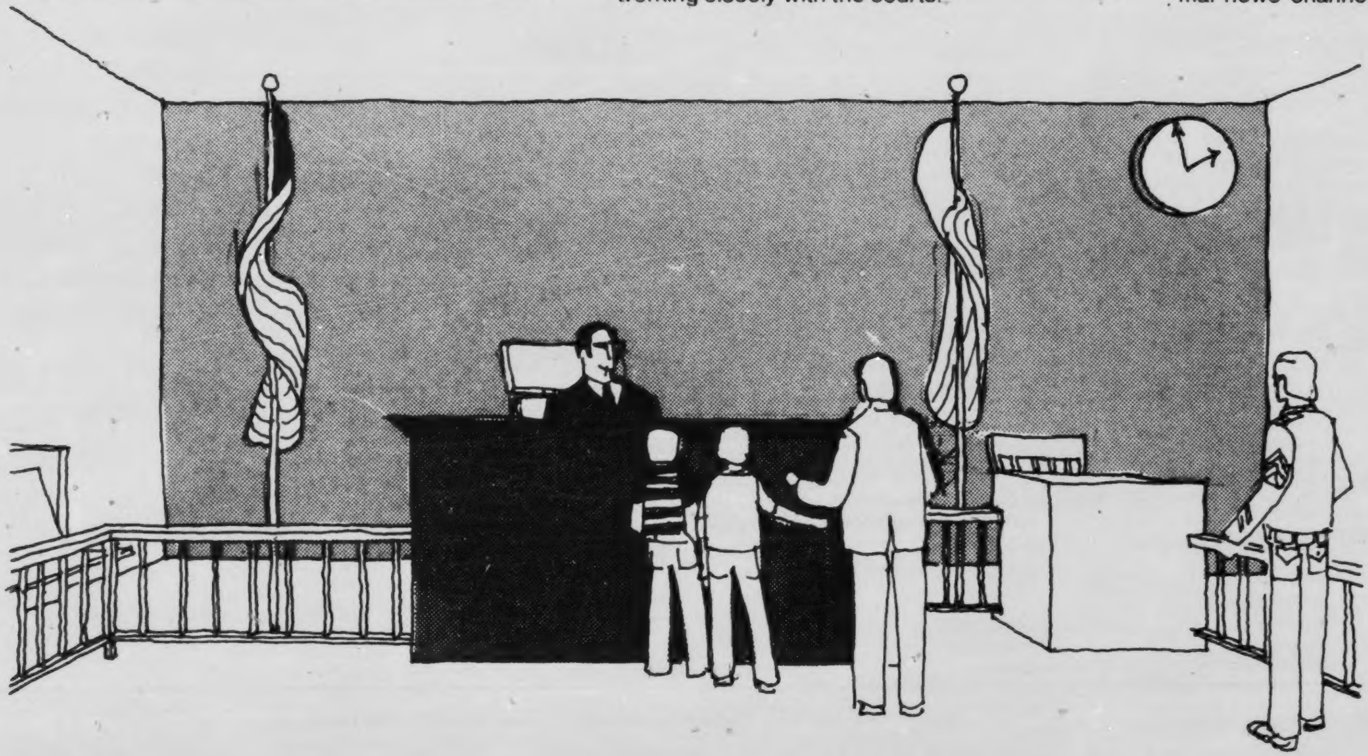
   The school department administers such a program through a school security office staff, working closely with the courts.

2. **How is a Restitution Program Organized?**

   A series of steps must be established, employing at least the following staffs: investigative staff; accounting; notification of offender and family; receipting; enforcement; court officer preparing suits.

3. **How Can Restitution Programs Be Made Visible?**

   School newsletters, the press, and other normal news channels can be kept informed of

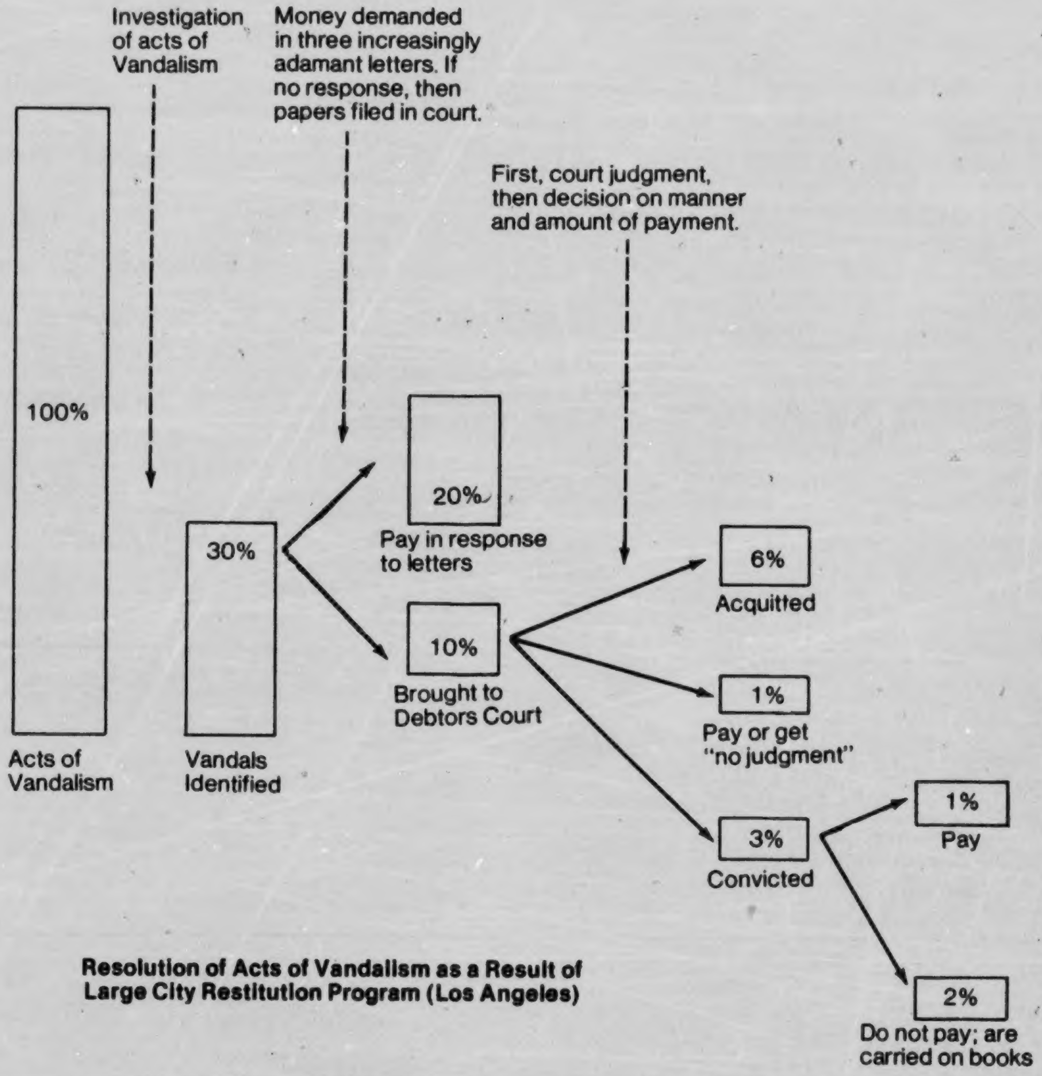


specific events. In Los Angeles, every case goes before the school board in a public meeting and is therefore reported in the newspapers.

4. **How Effective is the Enforcement of Restitution: How Much Damage Can be Repaired with Funds Obtained?**

Restitution does not seem to be cost effective. The majority of persons responsible for property damage cannot be caught. In Los Angeles only 30% of the offenders are even identified.

As can be seen in the diagram on the following page, most restitution from identified vandals is received at an early stage in the process: after writing several adamant letters to vandals and their families. This stage is the least expensive one, yet accounts for over 95% of the restitution. The expense of obtaining the rest through lengthy legal processes has a greater effect in establishing the image of uncompromising justice than in alleviating property repairs.


Investigation of acts of Vandalism
Money demanded in three increasingly adamant letters. If no response, then papers filed in court.
First, court judgment, then decision on manner and amount of payment.
100%
Acts of Vandalism
30%
Vandals Identified
20%
Pay in response to letters
10%
Brought to Debtors Court
6%
Acquitted
1%
Pay or get "no judgment"
3%
Convicted
1%
Pay
2%
Do not pay; are carried on books

Resolution of Acts of Vandalism as a Result of Large City Restitution Program (Los Angeles)

- A student vandalism account is a special student account established with funds from the regular maintenance or vandalism budget. Students are told that any money not spent to repair property damage during the year may be spent by students for anything they want at the end of the year. In San Francisco where this program originated, it was begun because school administrators and community members were frustrated with the results and implications of alarms systems, police surveillance, and roving guards. The community decided that vandalism should be approached by exerting more effort "in the area of parent and student attitude."

Programs such as these, involving rewards, tend to be more effective with younger grade-school age children than with high school students. Yet such a program may motivate high school students by giving them the status of sharing in administrative authority and responsibility for managing part of the repair budget. To maximize the attractiveness of defending the school from damage during school hours (the only period during which students might have preventive control) there must be no constraint on what students may spend their money. In addition, since the program has to motivate the entire student body, strong student leadership is essential as is involvement of well-liked teachers.

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1. What are the Objectives of a Student Vandalism Account?

The goals of the student vandalism account program are:

(a) *To educate students as to the cost of vandalism.*
Students including those not involved in property damage have no idea of the costs involved in these losses. Twenty broken windows may not be very meaningful, but the price of these windows subtracted from a proposed project becomes very meaningful. The $900 available for a new projector may suddenly become $700 as the result of a smashed lavatory partition.

(b) *To allow students to see the positive results of non-damage.*
If funds are needed for repair, that is what they are used for; but if the student cooperation makes repair unnecessary, then the students enjoy the benefits.

(c) *To turn the responsibility for either the cost of vandalism or the positive results of non-damage over to the students themselves.*
In San Francisco, vandalism of student group projects was nil.

2. Where do the Funds for the Program Come From?

They come from the maintenance, repair, or vandalism budget. The idea behind this program is to take money already earmarked to be spent on repair, and give students a chance to rechannel it into projects they choose.

3. How Much Money does the Program Take Per Pupil?

Some school systems allocate one dollar per student per year. Others have a lump sum for each school which they divide into monthly allotments.

4. When do the Students Get to Spend the Money?

If student interest is to be maintained, visible results are essential; so try to make the money available within the current school year. The program can be run on a January to January calendar year. This policy assures that at least some money saved during the ongoing school year is spent that year (an important fact, since seniors or others leaving the school do not have interest in the promise of next year!). The money also can be divided up on a monthly basis available to spend each month, or left to accumulate for several months.

5. For What Types of Damage is the Account Held Responsible?

Funds from the student vandalism account should be used only for in-school intentional building damage except that caused by major fires. In order to make the program fair to students, it is critical to define what is malicious property damage and what is normal wear and tear. If students are charged for damage they cannot prevent — such as white walls getting dirty — they will soon be frustrated with the program. In order to maintain incentive, cases of damage bordering between vandalism and wear and tear should be judged to give students the benefit of the doubt.

6. Should the Student Vandalism Account Be Held Responsible for Damage After School, Over Vacations, and During the Summer?

If students are held accountable for damage which occurs while they are not at school, the student vandalism account may soon be depleted, and students will be punished for situations over which they have no control. Enthusiastic elementary school students can lose all interest in the program if they have to spend all their money to pay for windows broken by local teenagers over the weekend. It makes sense to use this program to reduce in-school damage; deducting from the student vandalism account only the cost of acts of vandalism which occur while school is in session.

7. What Limitations Should be Put on the Use of the Funds Saved by Students?

None!

8. Who Decides How to Spend Money Not Used by Repair Costs?

Giving the students as much freedom and control as possible will probably attract the maximum cooperation and participation of students. In some cases it is good to have a student committee decide how to spend the money. In other cases students can run a survey to get student ideas on how to use the money.

The most important thing is for as many students as possible to participate in deciding how to spend and in actually spending the money. If only the student leaders choose a project, then many of the students who are potential vandals are left out. The program needs to be well publicized within the school, and the spending of the funds must be as democratic as possible.

9. What Happens When a Student Vandal is Identified?

When vandals are identified, then restitution is made and the student vandalism account is not charged. One possibly controversial aspect of this program is that students in their eagerness to keep their funds have an incentive to tell on other students. Parts of the community may react to the program by wondering if the school is bribing informants. Hopefully, an incentive program aimed at a group of students changes attitudes towards damaging the school, and teaches students the cost of damage, and does not pay off students to get others in trouble.

10. How Can a Student Vandalism Account Program be Publicized to the Community?

The community can become aware of the program through PTA meetings, community meetings, memos, and articles in the local paper. In order to avoid confusion and negative press, it is essential that the program, its goals, and procedures be carefully described to the community before it is established.

11. How Do Students React to the Program?

The more thoroughly the program is explained, publicized, and talked about in the school, the better is student participation. In some schools, charts are kept in the halls telling students how much money is in the account.

12. How is the Cost of Vandalism Damage Determined?

It is determined by either estimating or using the exact contract cost for making repairs, including labor and materials.

The better the records of prices for repairing damage, the easier it is to set fair prices. The involvement of students on the Student Vandalism Account Committee in price setting can further give students a sense that it is actually their money and their responsibility to determine its use.

13. What is the First Step in Establishing a Student Vandalism Account Program?

Set up a committee including students, teachers, principal, and maintenance staff to discuss program details and tailor it to your school. To ensure interest later, get students involved from the start in setting up and running the program.

- Programs to increase pride in school buildings and awareness of the condition of schools include events geared at "selling" students pride and involvement in their school facilities. Pride programs are inexpensive to run. But while they may strengthen student respect for property, they will do it most for socially-oriented students. Pride programs miss the real vandals who tend to shun such general social programs. Thus, malicious property damage might be reduced slightly during school hours because of increased watchfulness of more property-conscious classmates; but the greatest effect of the program will be in increasing school morale and reducing nonmalicious maintenance problems.

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1. How Can Pride be Made a Visible and Tangible Goal to Students?

In San Bruno Park, California, where a Project Pride is ongoing, schools are inspected by a school team each month, and if they receive an "outstanding" or a "satisfactory" rating, the school is allowed to fly a Project Pride flag. Schools that receive a "needs improvement" rating cannot fly the flag until their rating improves. The project also awards plaques to individuals or groups showing special pride in the school through "worthy projects or deeds."

2. Who are Members of the Inspection Team?

The team inspecting each school represents most members of a school community — teachers, PTA representatives, day custodian, principal, and others. Most importantly, it includes two students.

3. Who Receives the Special Awards and Plaques?

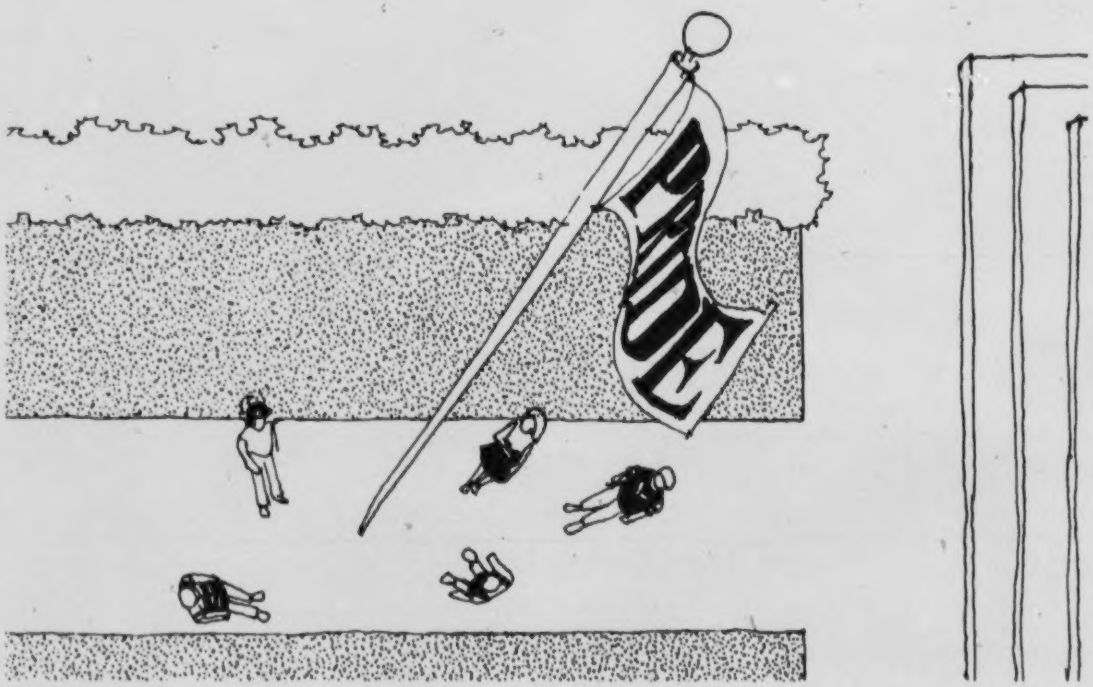
Awards are given to students, teachers, or community members who show extra care for the school. Special efforts by students are rewarded with small Smiling Face buttons, such as a kindergarten student picking up paper without being asked to. Sew-on patches are given to class members who carry out projects expressing their pride in the school. Plaques are given to parents, students, or teachers for special efforts, such as two parents who watered the flowers at one school all summer, or a student who helped secure the return of some stolen audio-visual equipment.

4. How is Student Interest in the Program Maintained?

It is important to continually change and update the program. A potential problem with any program such as this is that students lose interest in whether their school is allowed to fly a flag or not. The program needs to be a base for continually trying new ideas to interest students in caring for the school environment. Also, since different age groups are motivated in different ways, thought must be given to the kinds of rewards appropriate to various groups. Flying a school flag or getting sew-on patches may work better with elementary students than with high school students.

5. What Role Does the Appearance of the Building Itself Play in the Development of Pride?

San Bruno Park school administrators decided that if students were to have pride in



their building, the building needed to be worthy of pride. Therefore, they refurbished ten schools in the district. This included painting the interior and the exterior, and revamping the landscape of each school.

In some cases investment in the appearance of the school pays off. The San Bruno district superintendent reports that the investment made in the appearance of the school buildings and grounds has paid off over three years, since the amount of money spent on vandalism repair has decreased considerably.

6. **How Can Students be Given Information so They can Start Their Own Programs?**

Schools can distribute handbooks to students graphically describing vandalism costs and outlining types of activities they can organize in their schools to increase awareness of the problem. This can serve as a source book for students, but the choice of activities and responsibility for carrying them out must be left up to the students.

7. **What Types of Activities Does a Handbook Describe?**

In San Diego, California, where a handbook is distributed, it described activities including special days for activities; suggested projects such as clean-up campaigns and talks by student leaders; suggested speakers for assemblies such as attorneys, baseball players, and the head custodian; films and other audiovisual presentations to help build attitudes and teach responsibility; a sample student survey to assess student attitudes; evaluation guides; and tips on how to outline a speech or conduct an assembly.

8. **At Whom is Such a Handbook Aimed?**

The booklet must be written to appeal to and be understood by elementary and junior high school students, although high school students should also be able to use it. The more copies available the better, since service clubs and other groups may want to sponsor one of the activities described.

9. **How Much Does a Handbook Cost?**

Very little. The main cost is reproduction and perhaps paying someone to prepare it.

- School Beautification projects make money available for projects to improve the school's appearance and thus aim indirectly at reducing property damage and maintenance costs. These projects involve students in the care of the school facility and grounds in an attempt to increase their pride in and responsibility towards "their" school.

Advantages of freeing personnel from maintenance duties and saving operating funds must be counted as benefits from beautification programs in addition to any reduction of vandalism in areas where student awareness has been strengthened.

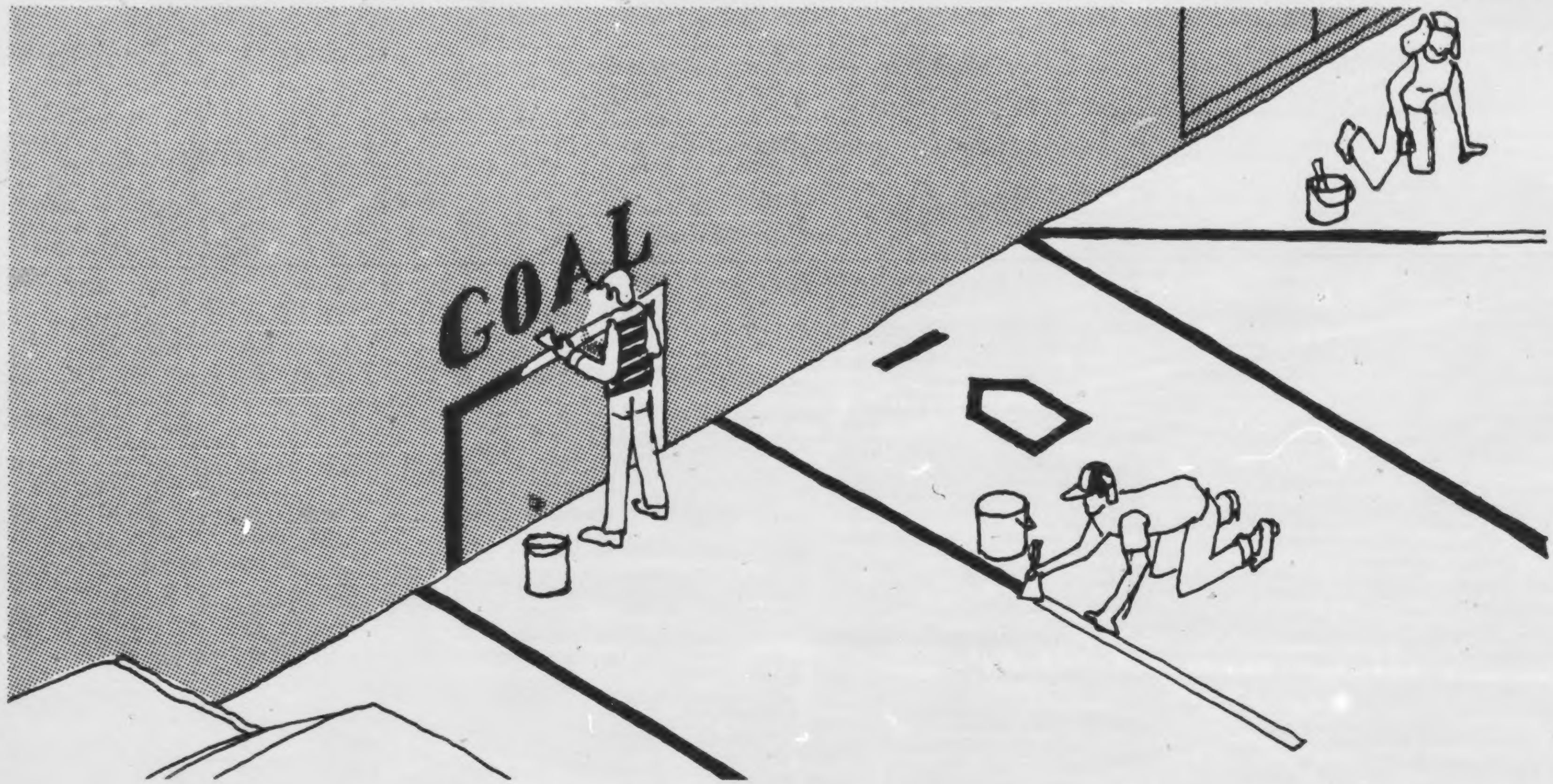
1. How Effective Are School Beautification Projects at Reducing Vandalism?

Such projects tend to reduce non-malicious damage, and some malicious damage in areas where students have some control and where they are involved. Also, the program can save maintenance money.

2. How is the Project Organized and Funded?

In Louisville, one of the first cities to initiate such a program, $10,000 is available each year to be distributed equally to participating schools on a per pupil basis (averaging 20 cents per pupil). The principal or project sponsor submits a written proposal to the district task force which oversees the project. Money is allocated to the school, after the project is approved.

The Office of Business Affairs is responsible



for figuring out the amount of money each school is eligible for, and also responsible for furnishing guidelines on how the money can be spent. At the end of the school year, all participating schools submit a written evaluation of the past year's project. Schools who want to participate in the project for the following year present plans at this time.

3. **At What Level School Is the School Beautification Project Most Successful?**

Student involvement in elementary school projects is higher than in junior or senior highs.

4. **What Attitudes Do School Principals and Teachers Hold Toward Beautification Projects?**

Some of the principals may be worried that the program will become competitive. They rightfully do not want to be judged on the basis of who reduces vandalism the most.

The Louisville decision to divide available money equally on a per pupil basis was made to allay such worries. To further cut competitiveness, the program turns back to the school Beautification Project half of any money cut from the annual vandalism bill. But instead of returning it to individual schools based on their success in reducing costs, the money goes into a district-wide pool. The whole school district is thus competing against its own record, instead of schools competing against each other.

5. **What Types of Projects Are Most Successful?**

Effective projects involve students in continuous activity throughout the year and focus on motivating marginal students rather than school leaders.

6. **Which Projects Are Less Successful?**

Less successful programs are those where funds are used to put a new tree or something else on the grounds. The tree is planted and forgotten, without even engaging the students in the project.

7. **What Other Measures Complement the Effects of School Beautification Programs?**

Many other programs aimed at reducing vandalism support beautification programs: police-school liaison officers, electronic systems, flood lights, and maintenance programs. School beautification is not a total solution to the problem of vandalism, especially since much vandalism may be caused by other than school age kids. Other measures are used to prevent breaking and entering and theft, while beautification projects try to increase student awareness for caring for the school — especially at the elementary level.

CHAPTER 5

Design Checklists

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PLAY: Formal Play Areas

What have you done to minimize breakage of objects around playgrounds and basketball courts?

	YES	NO
There is sufficient space around formal play areas for normal play	☐	☐
Ground surfaces in and around formal play areas have no major irregularities or hindrances to play.	☐	☐
Wall surfaces around formal play areas can be used to bounce balls back to players.	☐	☐
Low lighting fixtures and other hardware are out of the way of ball playing.	☐	☐
Lines on walls and on ground accommodate local street games.	☐	☐
There is a buffer between formal play areas and the school building.	☐	☐
There are no windows or glass doors around formal play areas.	☐	☐
Glass around formal play areas is specially protected.	☐	☐
There is no damageable planting immediately adjacent to formal play areas.	☐	☐

PLAY: Pick-up Play Areas

What have you done to be sure that objects will not be broken around pick-up play areas — areas near buildings like entry ways and pathways with hard ground surfaces, a wall, and enough room to throw or hit a ball?

	YES	NO
There are consciously designed areas for pick-up play.	☐	☐
There is no low lighting or other fixtures which can be hit by balls in pick-up play areas.	☐	☐
Walls and ground surfaces in pick-up play areas are the same as in formal play areas.	☐	☐
There are no windows in pick-up play areas.	☐	☐
Any windows near pick-up play areas are protected from balls and sticks.	☐	☐

GATHERING: Hang-out Areas

What provision have you made to minimize damage when students sit on — hang-out on — convenient walls, steps, planters, ledges, and so on near play areas, pick-up play places, entries, and pathways?

	YES	NO
There are consciously designed and located areas for hanging out.	☐	☐
There are no fixtures in or near hang-out areas.	☐	☐
All fixtures in hang-out areas have tamper-proof screws.	☐	☐
All hardware and fixtures in hang-out areas are extra durable.	☐	☐
There are no windows in or nearby hang-out areas.	☐	☐
Windows in hang-out areas are specially protected.	☐	☐
Planting in hang-out areas bends easily and grows quickly.	☐	☐
There is no stiff and breakable planting in hang-out areas.	☐	☐

	YES	NO
There are benches or steps or ledges for sitting in hang-out areas.	☐	☐
All predicted sitting places in hang-out areas are far from breakable windows and fixtures.	☐	☐
Low walls, ledges, and steps in hang-out areas are made of extra durable material.	☐	☐
There are heavy trash containers in hang-out areas.	☐	☐
Trash containers in hang-out areas are designed to seem like targets for litter.	☐	☐
There are no planters in hang-out areas which can be used as trash baskets.	☐	☐
Replacements for small unit building materials used in hang-out areas, like bricks or panels, can be easily stored.	☐	☐

GATHERING: Watering Holes

What have you done to minimize damage in areas around schools which students use after hours as clubhouses — partially hidden places adjacent to buildings and large enough for small groups?

	YES	NO
There are consciously and appropriately designed watering holes.	☐	☐
All fixtures in watering holes are located out of reach of teenagers standing on one another's shoulders.	☐	☐
Fixtures in watering holes which are within reach are extra durable.	☐	☐
There are no windows in watering holes.	☐	☐
Wall surfaces in watering holes are extra durable.	☐	☐
Walls in watering holes can be easily cleaned.	☐	☐
Walls in watering holes can be painted.	☐	☐
Plants in watering holes are flexible and pliable.	☐	☐
There are no stiff breakable plants.	☐	☐
There are no planting containers in or near watering holes to be used as trash baskets.	☐	☐
There are heavy trash containers.	☐	☐
Trash containers in watering holes are designed as targets.	☐	☐
Small unit building materials used in watering holes can be easily replaced and stored.	☐	☐
There are no modular wall panels used in watering holes.	☐	☐

GATHERING: Niches

What have you done to eliminate or minimize damage in small niches created by recessed doorways, loading docks, fire stairs, and so on?

	YES	NO
All niches around building are essential for purposes of safety when doors are open.	☐	☐
There are no non-essential niches.	☐	☐
There are no fixtures in niches.	☐	☐
There is no reachable hardware in niches.	☐	☐
Doors in niches are glass-free.	☐	☐
There is no exterior door hardware on doors in niches.	☐	☐

ENTRY: Main Entry

What have you done so that people can see from a distance that the school is closed when it is closed but open when it is open?

	YES	NO
There are large sliding grills or garage type doors to cover over-transparent doorways in the main entrance, visible from a distance when school is closed.	☐	☐
Deep recesses at entries are inaccessible when school is closed.	☐	☐
The entry way looks open when school is open, but closed when school is closed.	☐	☐

ENTRY: School Bus Drop-off

What have you done to accommodate the rough behavior which will take place around school bus drop-off areas?

	YES	NO
Bus stop is visible to school offices or other interior areas.	☐	☐
Bus stop is located near entrance.	☐	☐
Bus stop is located away from windows.	☐	☐
There are waiting areas near bus stops.	☐	☐
There are durable benches in waiting areas.	☐	☐
There are no fixtures or hardware items in the bus stop waiting area.	☐	☐
School entry areas are planned as hang-out areas with limited hardware, glass, and fixtures.	☐	☐

ROOFTOPS

What have you done to be sure that rooftops accessible from the ground are able to withstand rough play?

What have you done to be sure that people cannot climb onto vulnerable rooftops from the ground or from accessible parts of the roof.

	YES	NO
Glass on accessible rooftops is ground floor type.	☐	☐
Fixtures on accessible rooftops are ground floor type.	☐	☐
Hardware on accessible rooftops is ground floor type.	☐	☐
Doors on accessible rooftops have minimum exterior hardware.	☐	☐
Windows on accessible rooftops have no exterior hardware.	☐	☐
There is no climbable planting or planting which will grow to be climbable located near building walls.	☐	☐
There are no built-in footholds on telephone poles adjacent to the building.	☐	☐

	YES	NO
Walls are too high to be climbed with 12 ft. 2x4 or other ladder substitute, i.e., wall is over 14 ft. high.	☐	☐
Fixtures on buildings do not provide footholds for getting onto roofs.	☐	☐
Incinerator and incinerator housing on roof cannot be climbed upon or used to get from one roof to another.	☐	☐
Gas meter cannot be climbed upon.	☐	☐
Fixtures on rooftop walls cannot be used as footholds for climbing to other parts of roof.	☐	☐
Permanent custodian ladders are replaced by convenient storage for portable ladders.	☐	☐
Heights of roofs adjacent to rooftops accessible from the ground are too high to be climbed with use of a 12 ft. 2x4.	☐	☐

MOVEMENT: Parking Lots

What provisions have you made to accommodate informal pick-up play in parking lots?

What have you done to be sure that there will be no damage to grass and other soft materials next to formal parking areas caused by extra cars and cars turning around?

	YES	NO
Parking lots are planned to accommodate pick-up play games.	☐	☐
There is a way to close the parking lot to cars when school is closed.	☐	☐
There are fences in selected spots around parking lot to protect nearby windows.	☐	☐
Parking lots are big enough for both partial parking and pick-up play.	☐	☐
There are low barriers between car parking areas and adjacent grass or other soft material.	☐	☐
There is a paved turn-around in the parking area.	☐	☐
There are no small grassed patches between parking lot and buildings.	☐	☐

MOVEMENT: Pathways

What have you done to minimize trampling of grass adjacent to paved pathways and along natural shortcuts?

	YES	NO
Paved pathways are located so that they provide the shortest walk between the two points they connect.	☐	☐
Naturally made shortcut paths have been predicted.	☐	☐
Escrow funds have been set aside to pave formal pathways after six months, when natural paths have developed.	☐	☐
There are subtle barriers between hard paved pathways and adjacent soft grass or dirt areas.	☐	☐
There is no grass or other soft material immediately adjacent to narrow pathways.	☐	☐

WINDOWS

What have you done to minimize potential damage to vulnerable windows?

	YES	NO
There are no windows in formal play areas.	☐	☐
There are no windows in informal gathering areas.	☐	☐
In vulnerable areas windows are made of several small panes, rather than one large pane.	☐	☐
There are no windows lower than three feet from the ground.	☐	☐
There is no acrylic or plexiglass in windows in watering holes and hang-out areas.	☐	☐
Ground floor windows are made of extra thick tempered glass.	☐	☐
Ground floor windows are made of thick acrylic or plexiglass.	☐	☐
Ground floor windows are covered with protective screens.	☐	☐

	YES	NO
Windows on higher floors are of decreasing strength.	☐	☐
Windows adjacent to interior watering holes or hang-out areas on upper floors, as well as on the ground, are especially durable.	☐	☐
There is extra thick tempered glass or double layer glass where acrylic or plexiglass is not advisable.	☐	☐
There are no windows at all in student stores.	☐	☐
There are no windows at all in administration storage offices.	☐	☐
There are no windows at all in industrial arts storage areas.	☐	☐
There are thin wire mesh screens over specially vulnerable ground floor windows.	☐	☐

DOORS

What have you done to minimize unnecessary damage to exterior door hardware, especially potential problems caused by highly visible and easily accessible panic hardware?

	YES	NO
All doors which are primarily exit doors have no locks or door handles.	☐	☐
Where there is a series of connected doors, only one of these doors has exterior door hardware.	☐	☐
There are no glass or other transparent panels on doors which give a clear view of panic hardware.	☐	☐
There are astrigals on all single doors.	☐	☐
Double doors are extra duty strength.	☐	☐
Double doors have sturdy center mullions.	☐	☐
Double doors have astrigals.	☐	☐
Panic hardware requires minimum amount of mechanical movement.	☐	☐
Panic hardware is easily repaired.	☐	☐

WALLS: Graffiti Walls

What have you done to minimize the possibility of damage to exterior walls and to fixtures and signs attached to exterior walls?

	YES	NO
Large expanses of easily marred wall space are composed of small sections easily replaced.	☐	☐
Wall surface materials in vulnerable areas are inexpensively and easily repaired.	☐	☐
Paint on walls is the same color as the material underneath.	☐	☐
Epoxy paint, glazed tile, or another highly durable easily cleaned material is used as high as kids can reach in high-damage areas.	☐	☐
Quick drying paint is used in high-damage areas.	☐	☐
Signs and other decorative wall hardware are out of reach from the ground.	☐	☐

GRAFFITI

What have you done to plan for expressive and decorative graffiti and to minimize the negative consequence of such forms of self-expression?

	YES	NO
There are some walls for possible graffiti which are lighter than other walls and have blocked out sections in watering holes, hang-out areas, and entry ways.	☐	☐
There are some formally labeled "graffiti boards" in high-use public areas.	☐	☐
There are some consciously designed informal graffiti walls which have easily and inexpensively cleaned or painted surfaces.	☐	☐
Walls on which graffiti is to be discouraged have inexpensively and easily cleaned or painted surfaces.	☐	☐
Informal and formal graffiti walls have surfaces on which sections can be selectively cleaned.	☐	☐

FIXTURES

What have you done to accommodate the rough use given to fixtures and hardware reachable from the ground — both on walls and scattered around the site like lamp-posts, bike racks, and guard rails?

	YES	NO
There are no fixtures on otherwise blank walls.	☐	☐
Highly visible fixtures on otherwise blank walls are covered by extra heavy grills.	☐	☐
Highly visible fixtures on otherwise blank walls are recessed.	☐	☐
All fixtures are out of reach of kids on each others' shoulders or holding sticks.	☐	☐
All fixtures are higher than ground level where they can be kicked or stood on.	☐	☐
There are no unnecessary fixtures on building exterior.	☐	☐
All fixtures are recessed.	☐	☐
All fixtures are covered with heavy duty protective plate.	☐	☐
There are no vulnerable rainwater pipes below 6 ft. from the ground.	☐	☐
There are no lighting fixtures with plastic covers.	☐	☐
Lighting fixtures are covered with armor-place glass.	☐	☐
Site fixtures are able to be climbed on and used as targets.	☐	☐
Site fixtures do not challenge students to damage them.	☐	☐

PLAYGROUND EQUIPMENT

What have you done to be sure that playground equipment can withstand the especially rough treatment it receives?

	YES	NO
Playground equipment needs special tools to be disassembled.	[ ]	[ ]
Official play equipment can accommodate extra rough play by groups sometimes older than those for whom equipment is officially specified.	[ ]	[ ]

GAME GRAPHICS

What have you done to predict, avoid, or accommodate legitimate graffiti: the lines students paint on walls to be able to play informal pick-up games?

	YES	NO
Some walls in pick-up play areas such as parking lots, formal playgrounds, and entryways have been planned to accommodate "legitimate" graffiti in the form of game lines.	[ ]	[ ]
Local teenagers and children have been consulted to determine needed pick-up game lines.	[ ]	[ ]
Game lines for local pick-up play games, like street hockey and stick-ball, have been painted on walls.	[ ]	[ ]
Stencils have been prepared so that local street groups can apply their own pick-up game lines to walls where they are appropriate.	[ ]	[ ]

PLANTING

What have you done to minimize damage to shrubs, bushes, and trees?

	YES	NO
Near active areas, all planting is flexible, resilient, and pliable.	☐	☐
There is no thorny planting to collect litter and prevent cleaning.	☐	☐
There is no thick planting which will be difficult to clean around.	☐	☐
There is no climbable planting near edge of buildings.	☐	☐
There is no planting in predictable pick-up play and hang-out areas, nor in watering holes.	☐	☐

INTERIOR DESIGN CHECKLIST

GATHERING: Hang-out Areas

What have you done to be sure that students have places to meet in public, and to be sure that damage will be minimized in informal active hang-out areas?

	YES	NO
Hang-out areas are consciously identified and prepared for heavy use.	☐	☐
There are no wall fixtures and adjustments located in hang-out areas.	☐	☐
There are some wall fixtures in hang-out areas, but these are out of reach of two teenagers, one on the other's shoulders or one with a stick.	☐	☐
Fixtures within reach in hang-out areas are extra durable.	☐	☐
There are convenient and durable trash containers in hang-out areas.	☐	☐
There are consciously planned places to sit in hang-out areas.	☐	☐

	YES	NO
Fixtures and ledges in hang-out areas which might be sat upon by groups of students are durable enough for this use.	☐	☐
Fixtures and hardware on hang-out area walls and ceilings which might be hung upon or climbed upon have reinforced attachments.	☐	☐
Both formal and informal sitting places in hang-out areas are far from breakable windows and equipment.	☐	☐
There are some walls in hang-out areas which are lighter and more evenly scored than other walls, and which can be predicted to attract graffiti.	☐	☐
There is a formally identified graffiti board in hang-out areas.	☐	☐

What have you done to minimize potential damage to lavatory fixtures, walls, and ceilings?

	YES	NO
There are no exposed plumbing pipes.	☐	☐
There are no exposed bathroom accessories.	☐	☐
Bathroom fixtures can be easily and inexpensively repaired if damaged.	☐	☐
Air vents are located so they cannot easily be used as ashtrays.	☐	☐
Wastepaper baskets are of a type which will not be permanently damaged if used as ashtrays.	☐	☐
Walls, up to the ceiling, are covered with heavy duty material.	☐	☐
Floors in lavatories are extra durable.	☐	☐
Ceilings in lavatories are solid.	☐	☐

	YES	NO
Ceiling elements in lavatories are specially specified to withstand poking with a stick.	☐	☐
Vertical elements holding up toilet partitions are attached to structural members in floor and ceiling.	☐	☐
Toilet partitions have tamper-proof screws.	☐	☐
Toilet partitions can be easily painted without looking shoddy.	☐	☐
There is some formally identified place in lavatories on which students can legitimately write — wood plank, painted wall, chalkboard.	☐	☐
There are consciously designed private social places for students, other than the lavatory.	☐	☐
There are durable benches in alternative social places for students.	☐	☐

What have you done to accommodate behavior in and minimize damage to watering holes — somewhat out-of-the-way places where students gather for more private discussions?

	YES	NO
There are some consciously planned watering holes in the school, and these are durable enough to take rough use.	☐	☐
Walls in watering holes are painted with epoxy paint.	☐	☐
Walls in watering holes are covered with glazed tile.	☐	☐
Some walls in watering holes are lighter than other walls and have blocked out surfaces in order to attract and thereby channel graffiti.	☐	☐
There are no fixtures or hardware in watering holes.	☐	☐
Fixtures and hardware in watering holes are out of reach of students.	☐	☐
Fixtures within reach of students in watering holes are extra durable.	☐	☐

	YES	NO
Equipment in watering holes likely to be used as a bench is reinforced and made extra durable.	☐	☐
There are no glass and no windows in potential watering holes.	☐	☐
There is no glass in watering holes which is lower than three feet from the floor.	☐	☐
There are trash containers in potential watering holes.	☐	☐
There are alternative legitimate lounges for students to use as an alternative to watering holes.	☐	☐
Legitimate student lounges are not visible from offices or classrooms and are accessible without having to pass through such places.	☐	☐
There are legitimate ways for students to personalize watering holes, for example, on graffiti-receptive wood or painted walls.	☐	☐

GATHERING: Niches

What have you done to minimize the probability of damage in niches: small hidden doorways and corners?

	YES	NO
There are no niches around doorways, under stairways, or other places within the school.	☐	☐
Where there are niches within the school, these are necessary for reasons of safety.	☐	☐
There are no fixtures, windows, or door glass in necessary niches.	☐	☐
Walls in necessary niches are tiled or painted with epoxy paint.	☐	☐
Ceilings in necessary niches are solid.	☐	☐

GATHERING: Cafeteria

What have you done to maximize the probability that cafeterias will be able to be kept clean, and that furniture there will be maintained?

	YES	NO
There are trash receptacles at the ends of each row of tables in the cafeteria.	☐	☐
Cafeteria furniture cannot be disassembled with conventional hand tools.	☐	☐

ASSEMBLY: Auditorium

What have you done to minimize damage to seats, walls, stage, and equipment during informal and formal use of auditoriums?

	YES	NO
Design of auditorium takes into account special informal uses as well as standard activities.	☐	☐
Auditorium seating is comfortable but does not offer materials to play with like string, buttons, knobs, or leather.	☐	☐
Auditorium seating is assembled with tamper-proof screws or sunken bolts.	☐	☐
Walls as high as can be reached in auditorium are painted with epoxy paint or tiled.	☐	☐
Fixtures around the stage, especially at foot level or along the stage skirt are especially durable.	☐	☐
All control boxes are covered with heavy duty lockable grilles.	☐	☐
Fixtures in auditorium are located out of reach of kids standing on seats or armrests.	☐	☐

ASSEMBLY: Gymnasium

What have you done to be sure that wall hardware and floors in gymnasiums will be damaged as little as possible?

	YES	NO
There are large uncluttered walls in the gymnasium for impromptu ball playing.	☐	☐
There are no wall fixtures within reach of people sitting on the bleachers.	☐	☐
Wall fixtures in the gymnasium are located in corners or on side walls out of the way of stray balls.	☐	☐
There are no clocks behind the basketball backboard.	☐	☐
Equipment storage lockers are visible to permanent staff offices.	☐	☐
Gymnasium floor surface can stand up to non-sport uses involving contact with tables, chairs, and walking shoes.	☐	☐
If gym floors requiring special maintenance are installed, commitments have been secured for ongoing maintenance training programs.	☐	☐

ASSEMBLY: Shop

What have you done to minimize potential damage to shop equipment?

	YES	NO
There is a central locked storage area large enough for all hand tools.	☐	☐

WALLS

What have you done to be sure that walls can be easily repaired and cleaned, minimizing the possible "epidemic" effect of wall damage?

	YES	NO
Large expanses of walls are made of small wall sections which can be individually repaired or replaced inexpensively.	☐	☐
Paint on walls is of a similar color to the substrate of the wall material itself.	☐	☐
In damage-prone areas, walls are made of harder materials.	☐	☐
Walls in highly traveled areas are covered with epoxy paint or glazed tile.	☐	☐
Paint used is quick drying.	☐	☐

WALLS: Graffiti Walls

What have you done to accommodate students' need to personalize their surroundings and to have some public recognition of what is theirs in a school — thus avoiding some random self-expressive graffiti?

	YES	NO
Walls on which graffiti is to be channeled are lighter colored than other nearby walls and have regular lines or squares as patterns to minimize chaotic appearance.	☐	☐
Walls on which graffiti is to be discouraged are easily painted or washed.	☐	☐
There are some strategically placed formal graffiti boards for students to write on.	☐	☐
Walls in areas prone to graffiti are painted with epoxy paint or are tiled from floor to ceiling.	☐	☐

CEILINGS

What have you done to minimize damage to ceilings, especially active passageways, informal gathering places, and lavatories?

	YES	NO
There are hard surfaced ceilings in lavatories, watering holes, and hang-out areas.	☐	☐
There are no drop-in ceilings in lavatories, watering holes, or hang-out areas.	☐	☐
When drop-in ceilings are used, these are firmly attached, heavy ceiling tiles that give way only slightly under pressure.	☐	☐
Ceilings are painted with epoxy paint.	☐	☐
Paint on ceilings is the same color as the sub-surface.	☐	☐
Paint on ceilings is quick-drying.	☐	☐

FLOORS

What have you done to minimize damage to floors in wet, dirty, and particularly rough places?

	YES	NO
Carpeting is installed in small squares or other easily replaced units.	☐	☐
All floor material can be repaired easily and quickly if damage occurs.	☐	☐
There are hard surface floors where rough or dirty activity will be taking place.	☐	☐
In quiet areas, there are soft surface floors.	☐	☐
There are no carpets in arts and crafts areas, in snack areas, or near sinks or easels in classrooms.	☐	☐
Carpets specified for noise reduction in work areas are attached to walls instead of floors, or acoustical tile is used.	☐	☐

DOORS

What have you done to minimize the probability of damage to doors and to door hardware, and to maximize ease of maintenance to these items?

	YES	NO
Door knobs and door closures are specified to withstand especially rough use.	☐	☐
Door closures cannot be disassembled with ordinary hand tools.	☐	☐
Built-in door hardware can be easily repaired if damaged.	☐	☐

GLASS

What have you done to minimize damage to glass on interior walls and doors, and to windows in informal gathering places?

	YES	NO
There is no glass in the lower half of doors.	☐	☐
There is no glass below three feet from the floor in passageways and other highly used areas.	☐	☐
There is no acrylic or plastic used as glass substitutes in heavily used areas.	☐	☐
Extra thick tempered glass or metal panels are specified in heavily used areas where thin glass is inappropriate.	☐	☐
Windows adjacent to interior watering holes or hang-out areas on upper floors, as well as on the ground, are especially durable.	☐	☐
There is extra thick tempered glass or double layer glass where acrylic or plexiglass is not advisable.	☐	☐
There are no windows at all in student stores.	☐	☐
There are no windows at all in administration storage offices.	☐	☐
There are no windows at all in industrial arts storage areas.	☐	☐
There are thin wire mesh screens over specially vulnerable ground floor windows.	☐	☐

FIXTURES ACCESSIBLE TO PLAY

What have you done to accommodate predictable sitting, climbing, and rough use of attached wall fixtures?

	YES	NO
All fixtures or equipment which protrude from walls are extra heavy duty.	☐	☐
There are no hardware or fixtures which can be climbed upon or played with in informal gathering or formal play areas.	☐	☐
All equipment has tamper-proof screws.	☐	☐
Light fixtures are located out of reach of kids on each other's shoulders or carrying sticks.	☐	☐
Light fixtures are recessed.	☐	☐
Thermostats are located out of reach of passing students.	☐	☐
Thermostats are recessed.	☐	☐
Air conditioners are placed out of view on an inaccessible part of the roof.	☐	☐
Fixtures and hardware do not make loud sounds when hit, touched, or damaged.	☐	☐
When damaged, fixtures and hardware do not remain in one piece providing students with a trophy.	☐	☐

ALARMS

What have you done with fire and theft alarms to minimize the chance of false alarms; to maximize effectiveness of alarms; and to maximize safety and security?

	YES	NO
Theft alarms have been installed in the following places:		
administrative offices	☐	☐
administration records area	☐	☐
cafeteria	☐	☐
kitchen pantry	☐	☐
teachers' lounge	☐	☐
audio visual equipment room	☐	☐
data processing equipment room	☐	☐
P.A. system control room	☐	☐
auto mechanics center	☐	☐
industrial arts center	☐	☐
library	☐	☐
band room	☐	☐
supply storage areas	☐	☐
student store	☐	☐
student store	☐	☐
portable classrooms	☐	☐
All fire alarm boxes are placed where they can be seen by adults at their daily work place.	☐	☐
Fire alarm boxes are placed in classrooms or offices.	☐	☐
Fire alarms require several small steps to be set off, not just one brief procedure.	☐	☐
Fire alarm boxes are connected to the central fire station, but there is a short time delay between sounding in the school and sounding in the station.	☐	☐

ZONING: Community Use

What have you done to be sure that community programs can be run effectively and with least probability of conflict with the rest of the school?

	YES	NO
The school is zoned for different evening and weekend community uses as well as for alternative daytime school uses.	☐	☐
Different zones are separated by gates strategically placed at corridor entrances.	☐	☐
Zones, when separated, have separate entries from the outside.	☐	☐
Offices of school and community supervisory personnel are located near multiple-use entries to school building.	☐	☐
Some supervisory offices are located near entry to recreational facilities.	☐	☐
There are places for people to gather comfortably near entrances and exits, where groups can serve as potential "people locks."	☐	☐

CHAPTER 6

Annotated Literature Search on Vandalism

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Literature on Vandalism: An Overview

Experts on vandalism differ radically as to the causes and meaning of destructive acts, what to do to persons who destroy property, and how to prevent destructive acts from occurring. There is, in fact, basic disagreement about how to define vandalism. In this overview of literature on vandalism we will try to clarify some of the apparent confusion resulting from these differences of opinion.

Acts of Property Damage

People who deal with vandalism on a day to day basis seem to define "vandalism" very narrowly. This leads to a distorted picture of the problem. For example, many public school districts list as results of vandalism only property damage for which a claim is made to an insurance company or for which a special order is processed. This list actually represents only a small percent of the true cost of property damage; it does not include damaged items of far greater cost such as doors, locks, paint, roofs, grounds and equipment which are often repaired by school custodians. Thus, items such as glass breakage, breaking and entering, and equipment damage are often discussed as the major instances of vandalism, while they frequently do not constitute the largest proportion of vandalism losses. To illustrate this, Bradley (1967) breaks down losses for 232 California school districts from various types of damage into the following six categories:

	% of Total Loss	Budget Cost/Pupil
1. **Operations** 80% of this loss involved lavatory mischief, graffiti and other interior and exterior markings on doors and walls, furniture defacement, grounds littering.	36%	$2.66
2. **Textbooks** 90% due to careless use, misuse and defacement.	21%	$1.64
3. **Maintenance** 70% due to theft, breaking and entering, equipment damage, exterior defacement, glass breakage.	19%	$1.21
4. **Instructional Supplies** 80% due to deliberate or careless waste, misuse or pilfering.	14%	$1.04
5. **Library and Supplemental Books**	7%	$ .69
6. **Miscellaneous**	3%	$.065

Dr. Harvey Schribner, former Chancellor of the New York City schools, corroborated the fact that malicious damage may not be the greatest property damage cost by reporting that although the recorded vandalism cost for New York in 1970 was just over $2 million, the real cost could probably be estimated at more than $5 million, if one included such difficult to account for items as wall and desk defacement and breakage of furniture and fixtures (New York Times, 1971).

This definitional problem is further complicated by the fact that it is difficult to judge if an act of destruction was actually the result of vandalism or of some other cause (e.g. over-use or misuse). In fact, several school districts have estimated that about 50% of the repair cost for instructional equipment is due to misuse, not vandalism (Wells, 1971).

The importance of clearly defining and measuring property damage is evident when one considers the effect the definition of vandalism has on preventive techniques. Preventive responses have most often been aimed at easily quantifiable items encompassed in the usual narrow definition. This means that major areas of damage are more or less passed over. Also, an apparent decrease in the costs of normally defined vandalism in a school (perhaps brought on by some preventive efforts) does not necessarily mean a real decrease in the cost of property damage.

Other forms of unaccounted for damage might, in fact, have been increasing, thereby counteracting the reported savings. For this reason, several people have argued against treating vandalism, in terms of symptoms, and for treating it diagnostically — delving into the nature and causes of the destructive act (Greenbert, 1969). A diagnostic approach is also recommended by authors who generally agree that one preventive method cannot be expected to have the same degree of success in a variety of situations and settings. Therefore, it is argued that diagnostic study is necessary to determine the appropriate deterrent or preventive technique to be used for each given situation.

Causes of Vandalism

Although often considered one manifestation of juvenile delinquency, "the cost to the American public for vandalism is greater than for any other form of juvenile property offense" (Wade, 1967). For this reason, much speculation has been made about the reasons for this costly form of behavior. Some authors have merely developed labels for individuals who commit these acts (e.g. "vindictive," "bored," "frustrated," "angry"), while others have gone beyond this to discuss (1) *how* an individual gets this label and (2) *why* he/she commits acts of property damage:

(1) **How:** The most interesting view of how someone gets labeled a vandal is one held by Stanley Cohen (1968) who argues that all deviant behavior (including vandalism) is relative and that it is often a political decision as to who is labeled "deviant" (i.e. someone with power acts to label someone else as deviant). To label someone a "vandal" is to conjure up images of "barbarous, reckless, ruthless" conduct, while this is sometimes not the case (as in ideological vandalism). Moreover, to describe property destruction as merely "reckless, ignorant vandalism" is a political judgement because it denies any rational motives behind the behavior, thus justifying certain punitive measures: "Conventional vandalism is not as meaningless or wanton as these labels imply. The acts both make sense to the actor . . . and possess a distinguishable pattern (e.g. the property damaged has certain physical and social characteristics)." The usual terms used to describe vandalism obscure what may be real explanations for it. "The only problems that these labels solve are the teachers' problems in trying to preserve the image that they are blameless."

(2) **Why:** In the literature, there are primarily two approaches taken in answering the question "Why does a person vandalize?": one deals with problems within the individual (psychological factors such as "the urge to destroy," or mental disturbances); the other deals with problems of society and how these affect the individual. The first approach is not of particular interest to us here for while it may account for the behavior of a small percentage of vandals, it does little more than this — short of recommending psychotherapy. The societal approach, on the other hand, is divided into two ways of looking at the problem. These are: (a) the general problems of society on the whole and (b) more finite problems of specific societal institutions.

(a) **Society in General:** Several writers have accounted for vandalism as a reaction to the "general ills" of our society (e.g. as a protest by adolescents against their ill-defined role in our social structure or as a response to the violence which surrounds us daily). Philip Zimbardo's study of aggression and vandalism among middle class white citizens based on laboratory and field work is an example of this. Zimbardo holds that destructive behavior is brought on by the "deindividuation" of people, caused by the "dissolution of many of the old restraints which normally control and expression of our drives, impulses and emotions. Factors such as the size of our cities, the widespread renting of apartments rather than owning one's home, and the immense mobility of Americans are cited as elements which seen to lead to a "weakening of controls" (Burnham, 1969).

While this type of approach can lead to greater understanding of the problem, its acceptance as a basis for social action among those trying to do something to alleviate the problem of vandalism can only lead to an increase in frustration.

(b) **Specific Institutions:** Although a 1960 *Nation's Schools* survey found that a large majority of school administrators blame parents for juvenile acts of vandalism, a substantial number of articles and reports have placed the blame on schools themselves.

Several have viewed the act as a type of communication:

> "The most serious aspect of vandalism is the set of messages it conveys: that students see school as alien territory, hostile to their ambitions and hopes; that the student feels no pride in his school."
>
> (HEW Report: *Urban School Crisis*, quoted in Sullivan, 1972)

Similarly, Bower (1954) argues that children finding no satisfaction in school, come to perceive the school as a punishing, hostile place and its objects (desks, chairs, teachers, windows, books) as objects of hatred.

The problem of why students come to view schools in a hostile way has been approached from the standpoint of the school's relationship to those outside of the institution and its relationship to those within. In the first case, it is felt that both the public and students have been alienated from schools because schools have become "overly professionalized," with the administration and faculty becoming merely another large bureaucracy (Sullivan, 1972).

Within the school itself, Nathan Goldman (1961) in a study comparing the interpersonal relationships of administration/faculty/students/parents in high- and low-damage schools, found that low-damage schools teacher-teacher and teacher-principal interactions were less formal and that the principal often had an "open-door" policy. In high-damage schools, teachers focused on faults in the administration and in the building itself as causes of vandalism. On the other hand, low-damage school teachers emphasized the role of the entire staff and student factors of age and interest as important in preventing vandalism. Moreover, "teachers in high damage schools identified damage as mainly occurring in classroom areas, while teachers in [low damage] schools seemed to have an acquaintance with student conduct in all areas of the building and outside the building" (p. 106). On the community level, parents in low-damage schools expressed more favorable attitudes toward the school than did those from high-damage ones. Finally, Goldman found that vandalism occurred when communication channels with the principal were poor, when he/she did not define policy clearly and when policy-making decisions were unilateral. Goldman concludes that: "Insecurity and dissatisfaction in a school are conducive to violation by children of some conduct norms applicable to property and education." Of course the correlation between vandalism and school attributes does not necessarily mean a causal relationship between the two.

Finally, several writers fault the physical facility of schools for creating atmospheres that result in build-ups in levels of tension and frustration which often seem to have outlets in destruction and school disruption. For example, Wells (1971) cites a finding of the Syracuse University report on *Disruption In Urban Public Secondary Schools* that "obsolete, overcrowded, repressive, noisy facilities, particularly in large urban schools, with attendant noise and fatigue provide 'a ripe climate for disruption'."

Preventive Measures

Reports, studies and articles dealing with vandalism prevention and reduction techniques chiefly emphasize only 20% of the problem (i.e. those problems involving breaking and entering, equipment damage, exterior defacement, glass breakage, etc. (see earlier table). This, in turn, seems to be where most money allocated for solving the problem is going. This is not surprising because monetary losses in this area are generally the most obvious and easiest to measure, and acts like breaking and entering, theft, equipment damage and glass breakage are the most dramatic and publicly visible. Moreover, given this usual way of perceiving the nature and scope of the problem, it is also not surprising that people with the responsibility for vandalism prevention are often referred to as "Security Officers," and that techniques most often applied are of a police nature. A study of a large number of reports on prevention reveals that only 38%* discuss methods other than using ideas like bigger and better electronic alarm systems, patrol guards, dogs, tamperproof locks, window grills, or I.D. cards.

Some of the "softer" methods suggested for dealing with these same "security problems" were:

a. Techniques dealing with school **policy:**

1. Teachers carry their own keys (to prevent keys from being taken easily from a central location) and must pay to have the lock replaced if they lose them.

2. Neighbors are asked to report any suspicious actions occurring near schools. (In some cities, however, this technique has been countered by public apathy.)

3. Flyers are sent to residents within a one-mile radius of schools informing them of how the cost of vandalism affects them and asking for their help in preventing it.

4. Custodians are rescheduled to provide round-the-clock service. Sometimes this involves having the custodian live on the school premises. This would involve design as well as policy.

5. Deterrent signs are placed in schools (e.g. "This School Contains No Money") in combination with policies that back up these signs. Moreover, when signs are used, they are placed in areas where they are *relevant* (where the destruction occurs) and will be *noticed* (i.e. it does no good to place all signs "en masse" in one location where they frequently will not be read).

b. Techniques suggested for dealing with school *design:*

1. A great emphasis on window specification, with opinion ranging from the exclusive use of polycarbonate glazing (e.g. lexan), to the use of no windows or a few small windows, to a compromise of no exterior windows with interior windowed courtyard spaces.

2. Providing clear visibility of all areas; this would necessitate the avoidance of solid walls or solid gates around the school area. In addition, several writers recommend that schools be floodlit at night (*American School & University*, 1971), and that administrative offices and cafeterias be placed in the front of buildings where they can be seen from the street (Colmey & Valentine, 1961).

3. Avoiding areas which are not supervisable in either a formal administrative sense or visually and/or audibly in a more informal way.

4. Avoiding "add-on installations," e.g. air conditioners, light fixtures, bells and sirens.

5. Several writers have stressed the use of cheap finishes on walls which are easy to restore if damaged (e.g. paint).

6. Consulting in the design and construction phases with (a) the police as to the types of hazards prevalent in the area and (b) the school custodian for the "hazards" prevalent in a school.

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*Given the nature of our own study, we felt that while it was necessary to familiarize ourselves with all of these techniques, it was not necessary to become experts on, say, alarm systems as well. We have not reviewed all articles that were obviously of this nature. The 38%, therefore, probably overestimates the proportion of articles dealing with "softer" techniques.

Target Hardening

Some of these administrative and design suggestions are considered by a variety of authors as "target hardening" approaches — those which systematically toughen a school to withstand the onslaught of abuse and destructiveness and make it as impenetrable as possible. While some of these approaches might be useful several reports express concern that the impact of such measures might be more negative than constructive:

> "The system's response to the message left by the vandals only serves to cause further frustration among students which is expressed by more serious forms of violence." [They accomplish this] "by doing those things which will further reduce pupil, parent, and teacher morale" [e.g. installing electronic alarms, employing armed guards, dogs, police, etc.] "and further destroy any feelings of mutual respect and openness so essential to good learning."
>
> HEW Report: *Urban School Crisis*
> (cited in Sullivan, 1972)

Authors point out three major faults with target hardening approaches:

1. Several don't really work in preventing vandalism and, at times, cost more than the crimes they attempt to deter. For example, Cohen (1968) criticizes alarms for being themselves often a challenge or a target for vandalistic acts, attracting the opposite kind of attention than had been intended. Greenberg (1969), in his survey of school districts, found that the success rate for curbing vandalism in schools with alarms and/or security patrols was poor. In addition, he found that the false alarm rate was so high for these devices, that it became impractical to answer every warning (e.g. he found that for small businesses on a typical week in Los Angeles, the police reported from 91-100% of all alarms as false, with a 95% average for all companies).

2. The police-type approach which treats vandalism as a crime and the vandal as a criminal is criticized in a major study which concluded that:

> "The fact that the vandals [all well-dressed, clean cut, white] did not feel they were committing a crime raises an important question about theories of deterring crime in a big city through the presence of large numbers of people, improved night lighting and aggressive police patrols."
>
> Zimbardo Study on Vandalism
> (quoted in Burnham, 1969)

What good do crime deterrent tactics do if the offender does not consider himself a criminal?

3. Some reports criticize target hardening methods for being "Band-aid treatments"; that is, dealing symptomatically with a small part of the problem, thereby detracting much money and effort from larger aspects. By treating the symptoms of vandalism — not the "disease epidemic" itself — these measures operate on a trial and error basis. Unfortunately, the criticism continues, little can be learned or applied from such an approach because one method often cannot be used with the same degree of success in other sutiations — other schools, other times.

Causal Factors

Several authors have made suggestions for solving the vandalism problem by taking causal factors into account. In these instances, policy and design cannot be treated separately: design must closely follow policy in order for both to be successful. Therefore, reports suggesting policy action indicate that the designer should consider physical alternatives for implementing these policies. Such suggestions include:

(1) **Meeting students' needs:** In response to the charge that schools are not meeting the needs of students particularly on the high school level, two remedies have been offered. Both aim at the problem of promoting a greater sense of identity and achievement in students.

a. Critics of the traditional 4-year high school which offers only a limited variety of programs and schedules and often keeps students attending for the sole purpose of getting a diploma, have suggested the establishment of *alternative schools* which offer a more varied curriculum and more flexible time schedule. On the issue of diplomas, Bachman suggests that a diploma be given after 10th grade in order to eliminate 12th grade graduation as the sole achievement for high school attendance. He also criticizes negative anti-dropout campaigns which, he fears, unnecessarily injure the self-esteem of the dropout and may unintentionally persuade employers to hire only those with high school diplomas (cited in Sullivan, 1972).

b. One concept rapidly gaining in popularity as a technique for increasing school-student "identity" and for giving the student more individual attention so that his/her needs can be more easily met, is that of the mini-school: i.e. smaller schools which offer the students as many opportunities for "fulfilling" themselves as do larger ones, but increase the probability of this occurring because of their greatly reduced size. Gump strongly recommends that this approach be taken; as Sullivan concludes: "Gump's prescription is for high schools small enough so that individual students feel themselves to be significant." (Sullivan, 1972).

In connection with the mini-school concept, several larger schools are currently functioning on a "house" basis. Here the school is divided programmatically into several smaller groups called "houses" (often with a guidance counselor at the head) so that although in reality the students are all contained in one facility, they actually function in a smaller setting with which it is hoped they can more easily identify.

(2) **Community involvement:** The most direct and frequent technique used to cope with the problem of so-called community alienation has been the *community school*. Although in name many programs are labeled "community schools," in practice approaches differ greatly. Community involvement ranges from merely offering a school's facilities for community use after school hours to involving the community in the design of the school itself and giving them sole use and control of part of it.

In some community programs, residents of a school area are brought into the school in a paraprofessional student advisory capacity, becoming involved in school programs as well.

In Flint, Michigan, where the community school concept was pioneered, the director of the program reports that vandalism is being prevented.

> "Teenagers think of the schools as they place they play basketball — their place — and they don't throw rocks at it . . . and most of the visitors are astonished at the good condition of schools that are 30 to 40 years old. There's nothing written on the walls, for example . . . We've found it impossible to wear out a school" (Wells, 1971).

It seems obvious that some community school programs will have been more successful than others in reducing and preventing vandalism. However, to our knowledge, no analysis of which approaches have been successful, which have not, and why, has been done. Before any specific recommendations regarding this approach can be made, such an analysis must be done.

(3) **Good maintenance:** Several writers have observed that deterioration breeds more deterioration; that is, a building that is poorly maintained seems to invite destruction.

> "Deterioration in appearance can arise from causes other than vandalism, such as accidental damage, misuse or ordinary wear and tear, or weathering, decay, corrosion and other forms of failure; if these are allowed to develop, conditions favouring vandalism can become established in an estate previously free from it, or re-established in one from which it has been eliminated. Comparatively minor faults or incipient failure can provide temptation even to well-suppressed vandalistic tendencies" (Building Research Station, 1971).

It is not clear whether this relationship works by example (e.g. one unrepaired broken window leading to many window breakings in the same building) or by "tone" (i.e. a poorly maintained school sets a tone of no one caring about its condition, therefore there's no harm in damaging it some more). However, several steps are suggested to alleviate the problem: the first step is obviously to maintain good standards of maintenance — both by design (this might again harken back to consultation with the custodian during design phases) and operation. In the latter case, it has been suggested that the custodian's job might be made easier if a "good" (cooperative) custodial-student relationship is established. Moreover, students themselves can be enlisted in part of the maintenance program.

On the topic of designing for maintenance, however, the British Building Research Station warns that a happy medium must be found between those who emphasize maintenance to the exclusion of appearance and those who emphasize apperance alone. Neither prisons nor glass houses are recommended.

(4) **Avoiding Boredom, Challenge and "Nothing-to-do" Mischief:** The problem of filling up an adolescent's time with meaningful, constructive activities as a way of diverting his/her interest from the more destructive kinds, is a policy issue for the school, the community, the family — really for society in general. Several articles point out that it involves giving adolescents more meaningful roles and status positions in our society.

Few authors have suggested ways of accomplishing this. Some schools do report involving their students in anti-vandalism projects or in maintenance activities, but none delve any more deeply than this into changing the adolescent's status. Such techniques must be tailored to the needs of a specific group of students: programs for constructive activity in rural Michigan might only have limited applicability for students in Roxbury, Massachusetts.

Suggested design responses deal with such things as making school buildings "less satisfying" targets to damage by providing fewer tempting targets (e.g. smooth, light walls which encourage graffiti), and fewer places where a vandal can avoid being caught (e.g. areas invisible from the street). For example, one British study suggests avoiding features which "attract adventure" — like areas hidden from view, flat or low pitched roofs, posts, signs, special lighting fixtures. "Their design should either be kept simple and unattractive for adventure play or they should be strong enough to withstand it" (B.R.S., 1971).

Finally, the Fulton County School District, Atlanta, Georgia, reports trying to remove the challenge from breaking into a school by providing a relatively lockless one. Only three locks are found in the entire school: one for the storage of expensive equipment, another for the cafeteria, and a third for administrative offices (*Nation's Schools*, July, 1965).

Conclusions

This overview illustrates disagreement, opinion differences and divergent approaches among people concerned with vandalism. If any useful information is to be gained from all of this literature, this confusion must be sorted out. Some approaches must have greater likelihood of success than others, but as yet no recommendations can be made with a high degree of certainty. To be able to do this several approaches must first be tested to determine if, how and in what setting they work and when they do not work. After becoming familiar with what has been written one cannot help but agree with Greenberg (1969) who concludes:

> "The most effective method for obtaining valid data for sound policy development is by conducting a series of controlled experiments in selected school districts."

Many other reports conclude finally that "more work must be done in this area." To our knowledge, few tests have been carried out. Such conclusions without the necessary followup are no more than cop-outs. They present much information, but can offer few of the tools for its use. As a result, our aim is not merely to add to the bulk of available information, but to add to its usefulness as well.

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